



R. K. Headley—University of Minnesota

Chronologically—Five All!

EDUCATION IN THE KINDERGARTEN

SECOND EDITION

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Foster and Headley· EDUCATION IN THE
KINDERGARTEN, SECOND EDITION.

MADE IN U. S. A.

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Foreword to the Second Edition

OF

EDUCATION IN THE KINDERGARTEN

CURRENT HISTORY is making us increasingly aware of the fact that those foundations which are laid in early childhood are the bulwark not only of the individual but of the nation and the world as well. Since those persons concerned with the education of young children are the guardians of future generations of world citizens, it is their responsibility to see that the children have opportunities to build for themselves foundations which will support an on-going civilization and culture. A worthy program of education for today's young children must be one that will help them to meet the present and to build for a good future.

In this second edition of *Education in the Kindergarten*, as in the first edition, we have not presumed to set down any specific pattern of education for five-year-olds. Instead, we have presented, in one way or another, many factors which may well contribute to the wholesome development of five-year-olds. Throughout we have, as our frontispiece suggests, tried to keep before our readers the fact that individuals have their own rate of development; and it is our hope that those who use this text will become increasingly adept in pacing education to the needs of those individuals. Good foundations can be built only by taking into consideration the nature and the quality and the texture of the building materials.

The original text of *Education in the Kindergarten* has been taken apart almost sentence by sentence. One chapter, "Schools for Five-Year-Olds in Different Lands," has been dropped entirely; and in its place stands a new chapter titled "Social Climate of the Kindergar-

ten." A second new chapter, "Audio-Visual Experiences in the Kindergarten," has been added to the book. Other chapters, such as those dealing with science and records and reports, have been considerably enriched and expanded. The majority of the photographs are new, and all have been specifically chosen for this edition.

The Appendix, a new feature, includes a bibliography of standardized tests, check lists, and rating scales for kindergarten children and teachers; a list of current periodicals bearing on early-childhood education; and an extended list of suggested readings in the field of education and child development.

We cannot begin to thank the many persons who have contributed to this revision: Nursery-School, Kindergarten, and First-Grade children; students majoring in Nursery School—Kindergarten—Primary Education at the University of Minnesota; kindergarten teachers the country over; and fellow members of the Institute of Child Welfare—all these and many others have made their imprint on this edition. For the photographs we are indebted to those persons or institutions whose names appear directly under the individual frames. And to the public, which has been reasonably tolerant of the delay in this revision, we are also deeply indebted. Thank you all!

N. E. H.

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The Five-Year-Old

FIVE candles on a birthday cake! What will the next year bring? Almost certainly a period of interesting development, a year in which babyhood is left far behind and in which the child throws himself into his experiences with a zest for doing and feeling and learning which may well arouse the envy of the grown-up. For many American children age five means also school entrance. A small percentage of our five-year-olds are entering first grade; the larger percentage are in kindergartens if such schools are provided in their district.

What kind of kindergarten is best? Obviously one which is best adapted to the needs of its children. If the children are only four years old, then the program selected and the methods used must be ones appropriate for younger ages; if many of the children are six or nearly six years old, then the age standards will be higher. Since the majority of kindergarten children in this country are five at the time of entrance or at some time before they leave kindergarten, we may take age five as the typical kindergarten age. Before we can consider what kind of experience to provide for the child of five, it may be well to review what is known of his development and his abilities.

Physical Development. Physically the five-year-old is at the end of the period of very rapid growth known usually as "early childhood." He is probably somewhere between 35 and 49 inches tall and probably weighs between 29 and 55 pounds. Table I, page 2, shows the average weights for children of different heights at ages, 4, 5, and 6.

In using this table it would be well to remind ourselves that the more recent studies in child development tend to measure the child's deviation from the average in relation to physical types and familial patterns rather than in relation to height, weight, and age. However,

The Five-Year-Old

from the table we do get certain interesting facts. There is very little difference, for example, between the ratio of weight to height for boys and that for girls. Generally speaking, for the average child of 5,

TABLE 1¹

Height-Weight-Age Table for 4-, 5-, and 6-Year-Old Children

Height in Inches	WEIGHT IN POUNDS					
	Boys			Girls		
	Age 4	Age 5	Age 6	Age 4	Age 5	Age 6
35 in.. .	29			29		
36 in....	31			30	31	
37 in.. .	32	32		31	32	
38 in....	33	34		33	33	
39 in....	35	35		34	34	34
40 in. . .	36	36	36	36	36	36
41 in. . .	38	38	38	37	37	37
42 in. . .	39	39	39	39	39	39
43 in....	41	41	41	40	41	41
44 in. . .		43	43		42	42
45 in.. .		45	45			45
46 in....			48			47
47 in.. .			50			50
48 in.. .			52			52
49 in. . .			55			

Prepared by Robert M. Woodbury, Ph.D.

In this table, age is taken to the nearest birthday; height to the nearest inch; and weight to the nearest pound. Children from birth to five years are not considered to be seriously undernourished unless found to be from 7 to 10 per cent below these figures

the weight in pounds differs but little from the height in inches. For the shorter child the number of pounds is less than the height in inches, and for the taller child it is generally greater.

At age 5, the body² as a whole has attained about 38 per cent of its mature development, although different parts of the body are de-

¹ Table and notation taken from *Child Care and Training*, Faegre, M. L., and Anderson, J. E., University of Minnesota Press, Minneapolis, 1947 (7th ed., revised).

² Scammon, R. E., "The Growth of the Body in Childhood," *Measurement of Man* University of Minnesota Press, Minneapolis, 1930.

veloping at different rates. By age 5, the lymphoid organs have attained about 80 per cent, the nervous system about 88 per cent, and the genital organs about 8 per cent of their adult growth. All of the baby teeth have been erupted for some time, and quite possibly one or two have already come out; for while he is in his sixth year, the child may be expected to acquire the first four of his permanent teeth. The brain has grown so rapidly that by the age of 5 or 6, it is almost as large as it ever will be.

Motor Development. More striking than mere growth of individual parts of the body at this age, however, is the gain in control which the child has acquired over his muscles. In the first five years of life the individual changes from the newborn infant whose random movements are completely unco-ordinated to the alert child who is markedly master of his motor self. The five-year-old can walk, run, hop, skip and leap; in most instances he is an adept climber. With a little opportunity and practice he can dress himself, sometimes even fastening bowknots and hooks and eyes. He handles pencils and crayons reasonably well and is able to copy a square and a triangle, or perhaps even a diamond. By this age, children have become definitely right- or left-handed. About 90 per cent of them have become right-handed. One of the interesting facts about the motor development of kindergarten children is that this development seems to have little relationship to the child's mental ability. Generally speaking, motor development depends on chronological age or maturation, and only in part upon practice and mental ability.

Intellectual Development. Though the physical-growth curve indicates a slowing down of the physical development at the five-year level, there is no evidence that the same is true of the curve representing intellectual development. That curve, for the normal child, continues in its gradual ascent. One of the five-year-old's chief delights is trying to fit his learnings and new experiences in with his old experiences and understandings. Language has come to be one of his most efficient tools for the purpose.

Language. The child's speech has shown a somewhat amazing increase from an average of 3 words at the age of one year to 272, 896, and

1540 for the successive years. Now at the age of five he may be expected to have a vocabulary of 2072 words.¹ He will probably have at his command a greater selection of nouns than any other part of speech; but verbs, adjectives, conjunctions, and pronouns are also common in his speech. Adverbs are not frequently used at the five-year level. In the development of language, chronological age seems to be a more important factor than mental age. Children from families high in the socio-economic scale² ordinarily show a high language development. Twins frequently show a retarded development. At this age, for better or for worse, most children will have acquired all the language patterns commonly used by the adults with whom they are most closely associated.

The five-year-old child is still experimenting with language, trying out new words, inventing words by combining other words or by adding endings which he has used at other times. Moreover, verbal play is still interesting to him: he mumbles and gurgles, experimenting with new sounds and inventing combinations just for the fun of playing with sounds. His conversation begins to have some of the elements of a discussion, but if we listen to his hour-by-hour verbalizing we find that much of it is little more than a series of soliloquies. He talks about what he is doing, and if his audience fails to hear or to reply he is not concerned. He asks an ever-increasing number of questions.³

¹ Goodenough, Florence L., *Developmental Psychology* D. Appleton-Century Co., New York, 1945 (2nd ed.).

² The socio-economic status of a family corresponds roughly to the father's occupation. A classification of occupations is given by Goodenough and Anderson in *Experimental Child Study* (The Century Co., New York, 1931). A much abbreviated form of this classification is: Group I (about 3% of the total) architects, civil, electrical, and mechanical engineers, clergymen, teachers, dentists, physicians, lawyers, etc.; Group II (about 5% of the total) managers, superintendents, railroad officials, bankers, stock brokers, wholesale dealers, importers, accountants, draftsmen, state and federal officials, and inspectors; Group III (about 14% of the total) retail dealers, bookkeepers, cashiers, stenographers, real-estate and insurance agents, telegraph operators, carpenters, electricians, jewelers, machinists, plumbers, ticket agents, steam railroad conductors, veterinary surgeons, city and county officials; Group IV (about 19% of the total) farmers, florists, poultry and stock raisers; Group V (about 27% of the total) salesmen, policemen, soldiers, bakers, blacksmiths, painters, cobblers, tailors, street-railway conductors, firemen, motormen, chauffeurs, barbers, waiters, etc.; Group VI (about 13% of the total) messengers, bundle and office boys, miners, teamsters, switchmen, watchmen, janitors, servants, etc.; Group VII (about 19% of the total) laborers in coal and lumber yards, street and railroad laborers, longshoremen, farm laborers, gardeners, lumbermen, etc.

³ Davis, E. A., "The Form and Function of Children's Questions," *Child Development*, 1932, 3:57-74.

These are no longer primarily concerned with names of things, but more and more stress causal relations and social relationships. A sex difference appears here, for we find boys more often concerned with causes and girls more often with social relationships. Most of these questions (some 86 per cent) are asked of adults. Almost 90 per cent of the questions refer to the immediate situation rather than to the past or the future.

Along with the improvement in expression goes of course an increase in comprehension, and we find that the five-year-old is much better able than the four-year-old to understand verbal explanations. We cannot, however, rely on his understanding words accurately but must constantly check with the presentation of the real article or situation. English is a complex and confusing language. As adults we forget how many of our words have two or more quite different meanings. One kindergarten group was discussing the planting of bulbs. All of the children said they knew what bulbs were, and the discussion proceeded without difficulty until one little girl said they had a bulb at home which she could bring for the school garden but she didn't know whether or not it would grow, adding by way of explanation that "it wouldn't light any more."

Information. The experience of the kindergarten child has usually been comparatively narrow. He has acquired as much information as he could from his immediate surroundings and from stories and the radio and sometimes the movies. In the light of the information which he has he is likely to arrive at some rather startling and often amusing conclusions. Having been given an explanation of the way in which the taxidermist has prepared the birds for the museum exhibit cases, he may in all seriousness ask if a statue used to be alive. He may have a great deal of specific information but of the world at large he knows very little. The kindergarten child's information¹ is spotty and limited. He probably knows the name of a newspaper published in his city, but not the name of a hotel; he knows the number of hands on a clock, legs on a horse, and horns on a cow, but not the number of wings on a butterfly, pennies in a dime, or eggs in half a dozen. He knows the shape of the sun but not where it sets. He knows who cuts

¹ Probst, C. A., "A General Information Test for Kindergarten Children," *Child Development*, 1931, 2:81-101

hair, who pulls teeth, who takes out tonsils, and who brings letters to the house, but not who makes the laws of the country. He knows what ice, snow, shoes, and skis are made of, but not what lightning and paper are made of. He knows how we play a drum but not how we play a cornet. He knows what apples grow on but—unless he lives in the South—not where we get cotton. And he knows what Jack and Jill did, but not what kind of coach Cinderella had.

The child's lack of experience makes him unable to see relationships or to generalize as readily or accurately as an adult does. There is evidence that many of his erroneous conclusions are due not to failure to think, but to insufficient information. When an adult is faced with material as unfamiliar to him as is the case with children, the adult makes the same kind of mistakes that the child makes, and is no more concerned by contradictions in his answers than is the child.

Many five-year-olds can count* by rote to 19 without help and with help at the deciles can go on and on toward 100. Counting objects, however, is a different matter! A five-year-old does well if he can count and point with accuracy to as many as 13 objects. Many five-and-one-half-year-olds can count and point to 20 objects. The five-year-old can recognize his printed name when it is set down in large letters, and he often attempts to print his own name. Frequently he puts the initial letter at the right and proceeds to the left of the page putting the letters in proper sequence. When he defines a word he is likely to do so in terms of use, and when he tells about a picture he is likely to go beyond the mere enumeration of objects and to describe what he sees in the picture. He is often very adept at telling fairly long stories.

Learning. The five-year-old is learning rapidly. He wants to find out about things. He investigates, examines, and questions. The kindergarten child frequently appears to be an animated question box. His inquiries range from such comparatively simple questions as "Where does wood come from?" to such as "Where does the electricity go when you turn off the light?" He is frequently into everything. He is consumed with curiosity as to the weight, the strength, the taste, and smell of all sorts of materials. He wants to know how things work and he turns handles and punches switches to find out. He yearns to test his strength and exhibit his prowess. There is little he is not willing to

* See Gesell references at the end of the chapter.

attempt. Scissors, paints, saws, brooms, gadgets, and gymnasium apparatus all challenge him. He is very fond of books and stories. He knows that books are sources of information and frequently produces a book in proof of a point. His immediate environment offers him challenges unending. The alert five-year-old is seldom idle.

If a problem is made interesting and pleasant, the average kindergarten child will learn rapidly; if work is disliked, progress will be slow. The speed with which learning goes on depends in large part upon the personality of the teacher. But learning does not proceed at a uniform rate. Some individuals show considerable irregularity in their learning, gaining at times rapidly and at other times apparently not improving at all. Such periods of slight improvement have been shown sometimes to be actually advantageous for the ultimate accomplishment. Generally speaking, the greater the mental ability of the child, the more rapidly he will learn.

The kindergarten child may be expected to know how to take off his wraps and hang them where they belong, to go to the toilet by himself, to get his rug for rest period and fold it according to the rules of the school, to wash and dry his hands reasonably well. Simple habits of this type can easily be acquired if the teacher will only remember that the child needs motivation, that he needs much opportunity for practice, and that he needs to feel reasons for his behavior and to feel that the goal is within his reach. In the words of the White House Conference:¹ "Youth wishes to see results. We all do. Youth wishes to carry responsibility. The two things must be joined together under conditions that will secure more and ever better consideration of the broader consequences." Experiments in the psychological laboratory have shown that people learn more quickly if they are rewarded for their correct and mildly punished for incorrect responses. It has been found also that punishment and reward are more effective if they are natural (or apparently natural) results of the activity.

Imagination. Imitation and impersonation make up a large part of the play of five-year-olds. They make believe that they are other people, animals, fire engines, airplanes, locomotives, and even trees, flowers,

¹ White House Conference, *The School Health Program*, The Century Co., New York, 1932, p. 28.

rocks, wind, and waves. The child's imagination develops as he grows older. Sometimes in the third or fourth year we find evidences of a fantastic imagining which may disturb the conscientious and truthful adult. As long as the child recognizes the difference between fact and fancy, there is little difficulty. We do not want the individual to live completely in a land of dreams, and yet out of the combination of vivid imagination and high intelligence come many of our creative artists and scientists. The creative instinct is common to all children and only through much opportunity to experiment with materials and with ideas can the child reach his limit of creative ability.

The kindergarten child's imagination is strong enough to let him see the possible effects of bad behavior, and so when he is asked to explain some past irregularity in conduct, he occasionally tries to misrepresent or shift the emphasis—hiding some facts, stressing more desirable angles—all in the attempt to produce the sort of conclusion which will be pleasant for him.

His imagination lets him realize that some day he will be "grown up," and he talks and plans about what he is going to do when that happy time arrives. He apparently is concerned (at least as far as we can trust the evidence of dreams) with fire, animals, death, people, and his play. When we ask him what he would wish for if he were granted one wish, more than half the time he asks for some material object, and much less rarely for amusements, a new baby in the family, money, or supernatural power. Such an investigation¹ brought out the fact that as the children grew older they gradually came to realize that a general desire (such as to have all the wishes they wanted) if granted will automatically bring with it many specific desires. It also brought out the fact that children's wishes are directed toward actual objects rather than toward the acquisition of strength, power, or ability to gain these for themselves.

Interests. Many five-year-olds have an interest in hoarding and collecting, as is evident from an inspection of their pockets or lockers. Girls seem more interested in collecting fancy pins, small boxes, paper cuttings, and paper dolls. Boys seem more interested in such

¹ Jersild, A. T.; Markey, F. V.; and Jersild, C. L., *Children's Fears, Dreams, Wishes, Daydreams, Likes, Dislikes, Pleasant and Unpleasant Memories* Child Development Monograph No. 12, Teachers College, Columbia University, New York, 1933

things as small notebooks, cards, marbles, comic books, stones, bottle tops, and the like. Findings concerning kindergarten children's favorite play materials vary greatly. To quote from a study done by Farewell¹ on the favorite indoor playthings of kindergarten, first- and second-grade children, it would seem that with boys blocks are the most popular materials, and painting and modeling rank next. With girls, painting and clay modeling head the list of popular materials. Girls show less preference for blocks than do boys. . . . Girls seem to be more interested in other people and furniture, and boys more interested in tricycles, wagons, trucks, etc. In a study done by Van Alstyne² it was found that children in a five-year-old group show about an equal interest in active and quiet play. Boys tend, however, to be more interested in active than sedentary play. With each type of play the nature of the activity changes as the child matures. In using blocks, for example, the young child carries his blocks about, stacks them one on or by the other, pushes the pile over and starts all over again. By the time the child is five he usually starts his building with a plan in mind and has some appreciation of form and design. He is eager for almost any kind of information which will help him fit together his own jigsaw puzzle of life.

Emotional Development. Emotionally, also, the five-year-old child is on the road to maturity. From the comparatively simple and clear-cut emotional responses of his early years he has now developed finer shades and gradations of feeling, more subtle responses which express themselves in an increasingly greater variety of ways. He responds to a greater variety of stimuli and he responds in a more controlled manner. Although he is still likely to burst into furious or joyous activity, he may restrain himself upon occasion. Sometimes he will recover from an outburst as promptly as he has done heretofore; at other times he may harbor an emotion and sustain a mood for a fairly long period.

Probably the most commonly observed emotion in young children is anger. The causes which arouse anger vary with the age of the child.

¹ Farewell, L., *Reactions of Kindergarten, First, and Second Grade Children to Constructive Play Materials*, Genetic Psychology Monographs, 1930, 8:431-562.

² Van Alstyne, D., *Play Behavior and Choice of Play Materials of Pre-school Children*, University of Chicago Press, Chicago, 1932.

Generally speaking, the younger the child, the more apt he is to become angry at any interference with his physical activities. Perhaps he is struck by another child, perhaps someone withholds a toy he desires, perhaps he cannot steer his "Kiddy Kar" around a chair. If he is very young, his response to such situations will probably be a display of temper, but a few years later he may fight back or calmly endeavor to overcome the difficulty. As he grows older, his anger is more likely to be aroused by interference with his possessions, plans, and purposes, and by such things as being ridiculed or called names. Boys are in general more quarrelsome than girls. Of the common activities of the nursery school and kindergarten, sand play produces more quarrels than any one other cause, probably because the sand is not easily divided into indisputably equal shares.

Few fears appear in the ordinary school setup. The fears of most young children are very definitely influenced by the attitudes of the people about them. There is often a close similarity between the fears of a child and the fears of his mother. Since the teacher has usually been taught to conceal whatever foolish fears she may have, the children see little to imitate in fear at school, and few fears appear. In five-year-olds at home, the most common fears are: animals, supernatural events such as mystery and death, "bad" people, robbers, etc., darkness, being alone, strange sights, and deformities. Less frequently do we find fears of dreams and apparitions, gestures, noises, and frightening tales, bodily injury, or physical danger.

Jealousy is usually an accompaniment of strong affection and so not likely to appear in kindergarten. The calm, friendly, impartial teacher does not arouse jealousy as a highly emotional mother may.

One of the emotions which may appear at this age, though usually not earlier, is rivalry. By the age of five, many children will be spurred on to greater effort and higher accomplishment if they are working beside another child. At the younger ages, this companionship has no influence, except perhaps to serve as a distraction and sometimes actually to lower the output of each child.

Perhaps in no one aspect does a child change so markedly at this age as in his sense of humor. Laughter is a common accompaniment of a child's play, particularly if the child is well and happy. Boys laugh aloud more than girls, but girls smile more often than boys. Children of young ages are ready to smile back at anyone who smiles

at them; they seem to interpret an adult smile as an indication of friendly feeling and of a satisfactory state of affairs. Children of five are amused by noises, grotesque faces and figures, dramatic situations such as someone falling down, funny dancing, bumping into each other, things falling upside down and inside out. The appreciation of jokes and of varied types of humor comes only with experience and training. Gradually the child will come to recognize absurd physical phenomena, surprising relationships, word plays, and incongruities. At first the child laughs only at what he actually experiences in a first hand way; later he is able to laugh at pictures and at stories without any demonstration or pictorial representation. Although, generally speaking, the children who are mentally most alert are also those who are quick to see the funny side of things, such recognition depends not only on mental development but on actual training as well.

Social Development. The five-year-old is definitely more social than he was the year before. Records¹ have shown that the percentage of solitary children decreases steadily from year to year from 8 per cent at age 3, through 5 per cent at age 4, to 2 per cent at age 5. Not only is the older child less solitary but he is also gradually coming to enjoy larger groups of companions. While about a third of the groups of five-year-olds are composed of two members only, groups of more than five members are rare. In these groups the children are usually of the same sex. The groups hold together for only brief periods, with only about a third staying together for more than twenty minutes. Friendships become stronger, and quarreling with playmates becomes less frequent as the child grows older. Boys' friendships seem to be somewhat stronger than those of girls. Some solitary children find their social satisfaction in imaginary companions. These companions appear, if at all, usually between the ages of four and ten.

Gradually the child comes to appreciate the value of certain types of social behavior. He tries out various ways of approaching other children. Some of these are found to be usually successful, some are successful with only a few playmates, and some meet with failure under all conditions. Sooner or later he learns how to modify his behavior so as to avoid trespassing on the rights and feelings of others.

¹ Green, E. H., "Group Play and Quarreling Among Pre-school Children," *Child Development*, 1933, 4 302-307.

while at the same time accomplishing the aims which he has in mind.

There is considerable discussion at the present time about "training for leadership." While there is without doubt much which can be done along this line, there are also certain individuals who attain the ability to lead others from their own experience without definite training. In any group of children we are apt to discover a leader. At age 5, we find some who lead because of their domineering attitude; they are perhaps stronger than the others and threaten their playmates into acceptance of their own leadership. Other children lead because they have at their command benefits and privileges which the others lack. They are able to "treat" the others to candy, or to movies, or they have a home which offers marvelous possibilities in the way of toys and playroom. These leaders are successful temporarily, but their followers drop away whenever something more interesting appears. The most successful leader is the one who is resourceful, who thinks up more fascinating things to do than the other children, who can always vary a play to include a newcomer and make everyone happy.

Such a leader was Lawrence, a four-year-old nursery-school child. One day Lawrence and three other boys were playing in a big block-house which they had constructed, when in strolled Bobby. Now Bobby was a big boy of the same age but one whose only notion of play with blocks was to knock them down or to throw them around. At his approach the group sighed. One of them exclaimed, "Well, we might as well stop playing if Bobby is coming here." But Lawrence was at once the master of the situation. He walked up to Bobby and said, "We're pretending that we live in this house. How would you like to be our dog?" Bobby assented gleefully and was not disturbed at Lawrence's further explanation: "We don't let the dog in the house, but all this end of the room is the yard and you can run around it and bark real loud!" Thus the true leader absorbed the addition to the group with no serious modification of the plans of the original group. Although, generally speaking, the leader in the group is somewhat more intelligent than his playmates, if the difference in mental ability is too great he may fail to reach a ground of interest in common with the other children.

Individual Differences. Throughout this chapter we have been discussing general tendencies and traits which we may expect any five-



Public Schools, Oakland, Calif.

Many Five-Year-Olds Have an Interest in Hoarding and Collecting.

year-old to show. We must not forget, however, that each one of these five-year-olds is a distinct personality. Each one not only has a heredity which is all his own, but he has had five years of experience which will have been very different from the five years of his next neighbor.

We need only compare siblings of our acquaintance to realize that children in the same family differ not only in physical and mental equipment but also in the atmosphere in which they live. The attitude of the rest of the family toward a child may be influenced by some trait quite unrelated to the child's own behavior, such as his curly hair, perhaps, or his crossed eyes. These individual differences in ability and in experience mean, of course, that every child in school must be considered as a real person, not simply as a sample which is typical of all children.

SUMMARY

The kindergarten child is at an age where physically he exhibits no startlingly new development in his growth pattern. He is daily adding to his stature and perfecting already acquired skills. On the mental side, he shows distinct advances in language, in interests, in the amount of his information, and in the breadth and control of his emotional responses. Although many broad trends of development can be found, each child is an individual, different from all other individuals.

QUESTIONS AND PROBLEMS

1. A five-year-old girl weighs 36 pounds and her height is exactly average for that weight. What is it?
2. Observe a four-year-old child. How does he compare with the average five-year-old in motor and language development?
3. Observe a six-year-old child. How does he compare with the average five-year-old in social development?
4. If you were to purchase a gift for a five-year-old boy, what would it be? Why? For a five-year-old girl? Why?
5. Observe two five-year-old children. How are they alike and how different in their emotional responses? How are they alike and different in their interests?
6. Recall two sisters whom you know. In what ways are they most alike? What are the most striking differences between them?

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The American Kindergarten Point of View

New Schools from Old. The American kindergarten¹ of today is a direct descendant of the German kindergarten of Froebel, but in the course of the ninety years of its existence it has undergone many changes. It was only natural that a school planned for the youth of an old, long-established country steeped in tradition and in mystical philosophy should fail to fulfill completely the requirements of an educational institution for children in a young, pioneering, intensely practical land. The wonder is, perhaps, that so many of the original materials and methods clung to the transplanted school for so long. Gradually, however, the more typically American point of view has altered the procedure of the kindergarten, and when the newer theories and practices of Montessori became known, these were with little difficulty absorbed into the kindergartens already in existence. There are few schools in the country at the present time which can be labeled "Froebelian" or "Montessori" schools for the simple reason that almost every school shows likenesses to both of the older types.

¹ TABLE II—*Kindergarten Enrollments in the United States*
1888 to 1944

Type of Kindergarten	1888	1900	1930	1934	1940	1944
Public	15,145	131,657	723,443	601,775	594,647	700,877
Private	16,082	93,737	54,456	37,506	50,621	.....
Total	31,227	225,394	777,899	639,281	645,268	700,877

This table is taken from Chapter IV, p. 46, of the *Forty-sixth Yearbook, Part II; Early Childhood Education*, National Society for the Study of Education, Chicago, 1947. Quoted by permission of the Society.

Later statistics on enrollments, when released, can be obtained by writing to the U.S. Office of Education, Gov. Printing Office, Washington, D.C.

From Froebel we have many activities: singing, playing, talking, painting, gardening, modeling, weaving, looking at pictures, and listening to stories. These have been modified more or less to accord with research findings or to conform more closely to American habits. We have, for example, enlarged the play materials in the belief that thus we are guarding the child's eyesight and are also demanding less fine muscle co-ordination in the manipulation of the materials; we have reduced our demands for accuracy in handwork in the light of greater knowledge of motor development; and we have lengthened the time spent on certain activities as a result of our accumulated experience with children.

From Montessori we have taken over much of the social aspect of the school. In particular, we have adopted her notions of children's responsibility for the housekeeping of the room. We have heartily agreed with her insistence upon the importance of self-help and the exercises of practical life, although we have substituted the child's own clothing as materials for practice in place of the formal lacing and buttoning frames provided in her schools. We have accepted Montessori's belief that the teacher should to a large extent keep herself in the background and be an inspiration, a guide, and an "ever-present help in time of trouble," rather than a person concerned primarily with cramming information into the minds of her children.

In addition to its inheritance from Froebel and Montessori, the American kindergarten has been greatly influenced by Dr. John Dewey. As a result of his teachings, the kindergarten has come to feel that the present as well as the future is of importance to the child. Education is not all preparation for what is to come, but it is also the enriching and interpreting of the experiences of the present.

The teacher in the early kindergarten was, like the school in which she taught, a Victorian institution. She was first and foremost a "lady" who was concerned with "beautiful thoughts" and "sentiments" and who often rejected as unladylike and unrefined all else, even refusing to see ugly facts lying at her doorstep. She was taught through beautiful quotations and precepts. She learned of the desirability of whole-hearted purposeful activity through the adage: "Straight is the line of duty, curved the line of beauty; follow the one and you will see the other bending over thee." She learned of social training through another precept: "All are needed by each one; naught is good or fair

alone." So on, through her training, the kindergarten teacher of the early days grew to be more and more a charming and gracious lady who stressed beauty and art and grace to the exclusion, sometimes, of facts. Such a teacher served her day well. But she could no longer fit into the modern school. She has given way to the teacher who recognizes the values of beauty and art in life, but who refuses to believe that outward signs necessarily indicate an inward grace. The new teacher is a searcher for truth, an investigator into ultimate and oftentimes hidden causes. She is concerned not with polishing the veneer of perfect behavior required of "little ladies" and "little gentlemen" but rather with the fundamental, underlying concepts and attitudes of very human girls and boys.

Aims of the Modern Kindergarten. The American kindergarten of today attempts to give to the child of five an education which is appropriate to his stage of development, which will be satisfying to him in the present, and which will prepare him for the years immediately following. By such an education we mean the development of all his powers, physical, emotional, mental, and social. We do not seek to give him all the information which he may need now or in the future, but we hope to help him develop the power to meet new situations, with the understanding of how to gain whatever information he may need. We try to give him practice and skill in thinking, rather than tell him what he should think. We are interested in discovering the abilities and possibilities of each child, and we plan our school in accordance.

Physical Development. From the point of view of health and physique, the early years are of great importance. Of the children who enter kindergarten at the age of five, some have a background of careful medical attention, excellent diet, adequate sleep and rest, and many opportunities for desirable activity and exercise. Many come from overcrowded and congested areas where contagious diseases and unhygienic conditions abound. Others come from homes where there is only the most meager appreciation of standards of health and sanitation, and where little thought is given to the physical needs of the growing child.

The kindergarten must meet the needs of both these extremes. The

school must not interfere with the healthful regime of the fortunate children and it must work for the bettering of the conditions of the less fortunate. In Chapter V, the physical welfare of kindergarten children will be discussed in detail. No plan for a kindergarten can be satisfactory if it disregards the fact that a healthy body is a necessary foundation for good development of any kind.

Mental Development. It is perhaps unnecessary to say that the kindergarten is interested in promoting the mental development of the child. Although such a statement should be merely a corollary of the fact that the kindergarten is part of a school, yet many visitors fail to realize that absence of set lessons in the kindergarten does not mean absence of learning.

The kindergarten child is learning constantly. He is acquiring a great mass of information, broadening his range of interests, improving his skills, learning the technique of solving problems, and is developing his language powers to a marked degree. Later chapters will suggest specific ways in which the kindergarten encourages learnings of various kinds.

Emotional Development. The kindergarten which works for merely the physical and mental development of its children is not discharging all its duties or meeting all its opportunities. It has the further task of attempting to help the child control those emotional responses which are likely to lead to unhappiness for himself or for others, and to help him to express other responses which may prove beneficial.

In discussing the characteristics of the five-year-old, mention was made of the gradual maturing of emotional responses. The kindergarten can encourage this process by helping the child understand which events are worthy of extreme emotion and which are not. It can also help the child learn how to behave in the face of anger-provoking or dangerous situations. While traffic accidents do not arise frequently in the school, there is opportunity to help the child learn how to behave in the hazards of traffic, how to respond effectively when another child snatches his work, or how to act when a bee from the school beehive alights upon his hand.

At the same time that he is learning to repress certain impulses, the kindergarten child is improving his ability to express other de-

sires, ideas, and feelings. In Chapter IV will be found a discussion of some of the ways in which such expression may be fostered.

Social Development. Children from the age of three frequently exhibit strong desires for the company of other individuals. By the time they are ready for kindergarten they should have at least a dawning appreciation of their personal responsibility both for themselves and to the group.

The kindergarten stresses the child's responsibility for himself. If he cannot care for himself to a reasonable degree, he is a drag rather than a help in the group. And so he is encouraged to look out for his own toilet needs and for cleanliness and neatness. In the kindergarten many a child is for the first time away from the supervision of relatives or friends. Here for the first time he can, we hope, rely on absolute impartiality, uncolored by the fact that he is the son of his father and mother, that his relatives fall into the class of saints or sinners. In the school, he stands on his own behavior. He has the same rights, neither fewer nor more than the others, and he learns soon that the ideal of the school is the child who can be relied on to look out for himself without infringing upon the rights of others.

Besides encouraging this self-reliance in more personal matters, the school offers opportunities for the child to learn to take his place in a group. He learns to respect the property rights of other children, and their less tangible rights of speaking without being interrupted, working without being annoyed. He learns to think things out for himself. He learns also to contribute to the work of the group, to do his share whether this be of work or of talk. The child who fails to offer suggestions when the group is making plans is of no more help than the child who offers suggestions which he knows are silly. The kindergarten helps the child to assume responsibility not only for materials belonging to himself but for those belonging to other children and to the school as well. It provides opportunities for children to share materials when necessary, to take turns or to divide, to give and to accept help when it is needed, and to refrain from giving help when another child prefers to work things out for himself. In the give and take of everyday kindergarten play, the child has an opportunity to try out social techniques, to learn what kind of behavior is pleasing to other individuals in the group, what is pleasing to only a few or to

none. He has a chance to try out various methods for holding the attention of the group when he is talking or showing something, various methods of persuading others to follow his lead, and various methods of being a good follower when some other child leads.

Under the example and suggestion of the wise teacher, the kindergarten child learns the fundamentals of courtesy. He learns, for example, to listen when others are talking; he learns to limit his activities when they infringe upon the rights of others; he learns to understand and to appreciate the efforts and the accomplishments of others; he learns to give helpful criticisms when these are requested and he learns to accept helpful criticism and profit by it. Although in some schools the outward forms of politeness are stressed, and in all schools the children are taught such simple forms of speech as "Please" and "Thank you," always there is an attempt to make the child feel that these words are not bribes or rewards but are simply common forms of speech, equivalent to appreciative smiles, which are used to show gratitude and the recognition of favors received.

Guiding Principles. The kindergarten teacher of today plans her work and guides her children in accordance with fundamental general principles. Some are conclusions from psychological experiments, some the fruit of much experience, some mere statements of faith. They may be summarized briefly as follows:

1. There are many habits, skills, and attitudes which are essential to the successful adjustment of the individual and which can be acquired effectively before the child is ready for more formal school instruction.
2. Every child should be given all the information which he craves and which he is able to assimilate.
3. Every child needs a variety of experiences.
4. Every child has many interests which must be recognized.
5. Every child needs to learn to work and play with others.
6. Every child needs to learn to think for himself.
7. Every child learns more easily through doing than through words.
8. Every child, if deprived of actual experience, learns more easily through models and pictures than through words.
9. Every child learns more readily if he has incentives to urge him on to greater effort.

10. Every child learns more readily if he can review his experiences through such means as dramatization, discussion, drawing, modeling, etc.
11. Every child responds more readily to appreciation and to constructive criticism than to being ignored or severely criticized.
12. Every child differs from every other child in inherited abilities and in past experiences.

Acquainting Parents with the Aims of the Kindergarten. In many cities and towns there has been an earnest effort on the part of school officials to acquaint the public with the aims of the kindergarten. In some cities, either at the time of the spring or summer "roundup" or very early in the school year, the building principal, the school nurse, and the kindergarten teacher meet with the parents of new kindergarten entrants to outline the plans for the school year and to answer any questions which the parents may have to ask. Frequently a great deal is done through newspaper publicity to acquaint the public with what it means to the child to become a member of an entering kindergarten class. Within the last four or five years many schools have prepared kindergarten handbooks,* which they give to the parents of all kindergarten entrants. These handbooks, which are usually very attractive in make-up, supply the parents with information about school procedures and outline in an informal way the general kindergarten program, its aims, and its goal. These handbooks vary tremendously as to details of content, but each makes it a point to stress the importance of home-school co-operation as a factor in making provision for the child's best development. In many instances, samples of the handbooks may be purchased for a nominal sum from the department of education of the city in which the book is published.

SUMMARY

Starting with a set of guiding principles, the kindergarten teacher endeavors to fulfill the aims of the National Education Association¹ in offering to every child "regardless of race, belief, economic status, residence, or physical condition" an opportunity for the fullest development of his individual powers through education. The first year

* See listing at end of this chapter—some are much better than others.

¹ "Platform of the National Education Association," *Journal of the National Education Association*, 1934, 23:169.

of the child's school life is in many respects the most important. For the first time he has left the shelter of the family and has mingled with a large group of his contemporaries, each as ignorant of the world, as self-centered, and as individualistic as himself. The attitude which the child has toward education and toward life itself is frequently strongly reflective of this, an early and often a first, experience in group living and group education.

The concept of the overall purpose of American kindergarten education is not unlike the concept of general education set forth by the president of Harvard University in his annual report (1911-'43) to the Board of Overseers, which is quoted in the report of the Harvard Committee on *General Education in a Free Society*:¹ "The primary concern of American education today," said President Conant, "is not the development of the appreciation of the 'good life' in young men born to the purple. . . . Our purpose is to cultivate in the largest possible number of our future citizens an appreciation of both the responsibilities and the benefits which come to them because they are Americans and are free."

QUESTIONS AND PROBLEMS

1. Visit a kindergarten and record the activities which are most like and those which are most unlike the things which a child does at home.
2. What activities in the kindergarten could be classified as "exercises of practical life"?
3. Cite a specific case in which you observed the teacher helping a child to solve his own problem.
4. Give examples of activities in the kindergarten which fulfill each one of the 12 guiding principles listed on pages 21 and 22.
5. Why should the kindergarten be concerned with such matters as emotional and social development?

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The Kindergarten Teacher

IN THE life of any small child, people are more important than things. The "poor little rich girl" has come to symbolize the child supplied with a wealth of material blessings but lacking all-important happy companionship. And so, in the kindergarten, while the equipment may be meager, a good teacher will still give her children the true spirit of the kindergarten.

Personal Characteristics of the Teacher. What sort of person should the teacher be? Since the teacher is almost sure to be admired and copied by the children, some people conclude that the teacher must be a paragon. One list of "desirable attitudes and traits" in a teacher gives the following: "alert, altruistic, approachable, charitable, clean, co-operative, courageous, democratic, dependable, dignified, fair, faithful, generous, happy, honest, idealistic, impartial, just, kind, loyal, magnanimous, modest, neat, noble, open-minded, optimistic, patient, patriotic, poised, positive, progressive, pure (morally), reverent, sensitive to humor, serene, strong (physically), sympathetic, tactful, tolerant, true, and truthful." Apart from the vagaries of the language which by alphabetical arrangement bring "clean and co-operative," and "neat and noble" into juxtaposition, we cannot help wondering whether the person who seriously contemplates such a list can really have also the desired "sensitivity to humor." Another list which is impressive if you have not seen the one quoted above, says that the kindergarten teacher should possess: "good health, youth, patience, voice control, sense of humor, love of children, tact, training, and experience." Still another assumes that a teacher must be a leader and lists the four qualities essential to leadership as: "(1) the courage of the pioneer . . . of the adventurer; (2) the kind of courage that will

take a chance, will try a new thing, will experiment; (3) the ability to keep things from becoming static; (4) the ability to influence the actions of others."

Abandoning any attempt to alphabetize the desirable characteristics of a teacher, we may say that in selecting a teacher for young children, we want the very finest person we can get, a person who would still be a fine person if for one reason or another she gave up her teaching. In other words, a teacher should be thought of as a human being primarily and a teacher only secondarily or as a human being who is greatly interested in teaching. We cannot here take space to discuss the qualities which make up a fine person, but we can suggest the additional characteristics which are needed by the teacher of young children.

Probably the best teachers for young children in America are women. There is no reason why a man should not make a good kindergarten teacher, but as our schools are now conducted, the type of man who would make an excellent kindergarten teacher is not attracted to the work. Although some nursery schools have found that young men doing graduate work in psychology can make excellent assistants in the work with the children, it would be a rare and courageous young man of the present who would deliberately prepare himself for teaching in kindergarten or nursery schools. When we note how much the occasional visit or contact of such men as the principal, the doctor, the psychologist, or a visiting father—and we must not overlook the many pleasant contacts children have with some of the building caretakers—when we note how much these contacts mean to the children, then we wish we might provide more opportunities for men to be with young children.

In spite of the fact that some of our very best kindergarten teachers are found among those who have been in the teaching field for many years, the business of kindergarten teaching, generally speaking, is better adapted to those who are chronologically young. An older teacher, however, who is young in spirit is much to be preferred to a young teacher old in spirit. We have all seen some people in their twenties or early thirties who were much older, more static, and more labored in their bearing than other people in their fifties or sixties. These latter, in contrast, were alert, tuned to the present, agile in

both thought and action, and filled with a zest for the challenge of the day. The teacher of young children needs to be alert physically as well as mentally. She needs to be quick to change as her group changes, or as studies in the field of research and the proved experiences of others suggest change.

The kindergarten teacher should not be a person with a one-track mind. Although at times she appears to give her undivided attention to a single child or a single problem, she must also be able to have other children, other problems, in mind.

An observer sitting on the side lines is often amazed to note how many details the alert kindergarten teacher is able to keep in mind. Perhaps the teacher is helping John at the workbench, as he tries to figure out a way to fasten his propeller on his plane. She may appear to be completely absorbed in John's problem; but, at the same time, she asks Betty if she would take time to replenish the supply of Manila paper in the far cupboard. She smiles her approval of Jim's new stunt on the jungle gym, while she overhears, catches Blair's questioning glance and raises eyebrows as Blair, in the playhouse corner, threatens to break the dishes. She notices that the light is inadequate in the library corner, and asks Clark if he will be kind enough to snap the switch. She suggests that Lois put the ribbon which she has just found into the lost-and-found bag instead of in her own locker. She praises Tom for the way he handled the situation when Mike took Tom's blocks without asking. She nods her hearty approval as Peter turns from posting a picture which he has just finished. She reads and signs a note which has been sent from the principal's office. With a quick glance at the clock, she sets out the tray and napkins just as two fourth-grade boys come through the door with milk. All this she does and yet apparently she has been giving her whole attention to John and his propeller problems. The propeller is on the plane. It turns! Both John and the teacher seem pleased. John goes to the paint table; the teacher strolls to and sits down at a table where three boys, to all intents and purposes, are making pictures. Actually they are trying to outwit one another in "funny" remarks. For the next five or ten minutes the teacher gives her "undivided attention" to picture-making and conversation, but you may be sure she is also aware of many other details of action in the room!

What Children Like. Kindergarten children have not a sufficiently clear-cut appreciation of values to give us an exact idea of the qualities which they like in a particular teacher. It is obvious from their statements, however, that they like to have their teacher attractive. Fortunately this does not mean that the teacher must have a pure Grecian profile, nor must she have perfection in grace and movement. The little Russian storybook which depicts a plain peasant woman, titled *My Mother Is the Most Beautiful Woman in the World*, affords solace for many of us. At the kindergarten age, both boys and girls are interested in the teacher's dress. They like color, either in the material itself, or in the trimming; they love jewelry with an almost savage ardor; above all, they like variety. The "same old dress" may seem unobjectional to the teacher, but not to the children. Far better, from their point of view, to wear occasionally a still older dress, than always the same one. Sometimes a change in shoes or pin or ring or a bright handkerchief will give the effect of a fairly large and varied wardrobe.

More important than cast of features or style of dress is the facial expression of the teacher. A ready smile will win the confidence of practically every small child. A merry laugh will straighten out many a near tragedy. An interchange of glances or smiles will often bring about a sense of security and happiness which is suddenly greater than it was a moment before.

Many behavior difficulties have their root in the child's belief that he is disliked by the teacher. Such a belief, however lacking in foundation, is a potential source of difficulty. While no teacher can be human and still remain equally fond of all the children in her classes year after year, all can at least respect the individuality and the potentialities of each child and strive to help him to his best development. The teacher can be the friend of each individual and can reserve her emotional enthusiasms for her leisure hours. Showing special favoritism toward any one child will often turn the whole room against both the teacher and the "teacher's pet."

Not only must the teacher show no more fondness for one child than for another, but she must, of course, be absolutely fair in her dealings with all the group. Dishonesty and unfairness on the part of the adult will encourage dishonesty as well as open hostility on the part of the children.

While she should be perfectly impartial toward the children, the

teacher will be much more popular if she has definite likes and dislikes, with emphasis on the likes, for things and situations. Kinships can be established through expressions both of likes and dislikes. A teacher who shows her enthusiasm for ice-cream cones will at once have strengthened the bond between herself and all children in the group who also are fond of ice-cream cones. If, on the contrary, a child expresses a dislike for cabbage, and the teacher says that she can understand it because she herself had to learn to like it, there also a bond becomes strengthened. Then of course there are some things which it is one's personal privilege to care for more than others. In most instances the teacher will not care too much for certain radio programs and comic strips, which the children like; but she has no right to condemn them in a wholesale manner. It is wise for the teacher to keep in touch with children's current enthusiasms so that she can help the children to see their best points, to laugh with them over the best of the humor, and gradually to lead them to an appreciation of similar though higher grades of entertainment. Keep up with the comic strips in the paper even if you don't enjoy them! Pick out the best one and chat about its happenings with the children. If even this is beyond you, then tell the children frankly that you once enjoyed such things, but that you have outgrown them. Such an admission leaves you, in their opinions, still within the ranks of human beings.

No discussion of the characteristics of a good teacher would be complete without some mention of the teacher's voice. We Americans are rightly criticized for our harsh, high-pitched voices. Every beginning teacher can profit from a firsthand observation of the techniques used by our better public lecturers. The best speakers are not those who speak loudest. On the contrary, those who hold their audiences spellbound and who move them and carry them on from one point to another are those who enunciate clearly so that every word is audible, who have a pleasingly modulated voice, who seemingly speak without effort or strain, and whose voice is pitched considerably lower than the average woman's voice in ordinary conversation. Such a speaker's voice does not tire its hearers, does not irritate them.

It is often suggested, and usually implied, that a kindergarten teacher must have unbounded patience. True; patience she must

have; but it need not be the patience of a "Pollyanna." If occasion warrants, she should not hesitate to express dissatisfaction. Even a five-year-old appreciates "righteous indignation."

Training of the Kindergarten Teacher. Time was when any "lady" was accepted as a teacher of young children, but times have changed. Originally, the change was in the direction of giving the lady a four or five weeks' course in Froebelian methods. That time has gone. In the present day, the schools recognize the importance of providing well-trained teachers for the earliest school years and stressing the importance of a good general education as a prerequisite for special training in teaching methods.

In the *Forty-sixth Yearbook, Part II*, of the National Society for the Study of Education¹ Millie Almy and Agnes Snyder summarize reports on present certification requirements for kindergarten teachers as follows: "Nine states provide certification for kindergarten teachers, usually including primary teachers of Grades I to III. In five states, three of which do not provide any special certification for kindergarten teachers, the requirements for professional courses emphasize child growth or human development. The amount of college preparation required to teach in the elementary school varies widely. Nineteen states require four years of training beyond high school; four states require three years of training of college grade; fourteen require two years of training beyond high school; nine states require one year of training beyond high school; and two states require less than one year of training beyond high school. This picture of inadequate preparation of many of those who are already employed is further complicated by the present over-all teacher shortage and by the increasing demand for services for young children."

Many a young student beginning her preparation for teaching feels that the requirements in history, laboratory sciences, modern languages, and even psychology, sociology, and American government are unwarranted for a person not planning to teach these subjects. Those who have experience realize that children expect their teacher to be a walking encyclopedia of information. However broad the teacher's knowledge and experience, she will be able to use it all and will often wish that she had been able to study much more. When a child brings

¹ See Chap. VIII, pp. 230-231, of reference at end of chapter. Quoted by permission of the Society.

an unusual stone to school, or an odd bird's nest or discarded snake's skin, or a foreign toy, there is opportunity for educational discussion, if only the teacher knows enough. The teacher who has traveled, who has become acquainted with all sorts of people, who at least is widely read, is a better teacher than the one whose horizon is limited to the four walls of the schoolroom or to the city limits of her community.

In the line of technical preparation for her work, the teacher needs a good understanding of the public-school system. She should have a clear understanding of the aims and possibilities of education. She should know what type of things children do and learn during their school career. In particular, she should understand the curriculum of the elementary school.

Since one of the duties of the kindergarten is the preparation of children for first grade, it is perhaps unnecessary to say that the kindergarten teacher needs especially to know what the child will meet when he enters first grade. If teachers can have some actual experience in teaching grades above and below their own chosen level, then they will in all probability be more effective teachers when they return to their own grade.

Since the previous experience of kindergarten children is limited to the home and, sometimes, the nursery school, the teacher needs to understand the points of view of and common methods used in both these institutions. Such information cannot be obtained from the children themselves, but is acquired only from actual observation or through studying the work of others.

It is obvious that the more the teacher knows about the characteristics of the five-year-old child, the better she should be able to guide him in school, provided always that she does not reach that aloof, wholly scientific frame of mind in which she is so engrossed in observing the child that she completely ignores the necessity for action. It is possible to become so much interested in watching a child's experiments with electricity that one forgets to save the child from serious burning. The teacher must never get so far into the theoretical that she abandons the practical.

The kindergarten teacher will see many ill children during her years of teaching. Gradually she will come to recognize certain symptoms of ill health. Some study of the health care of children should serve as a short cut to such understanding and should help the teacher

more quickly to recognize evidences of contagious diseases, high temperatures, and the like.

Obviously, the kindergarten teacher needs to know the possibilities and the limitations of different materials with which a school may be equipped. She needs to know how best to care for these various materials.

She needs to know also which methods have proved most effective in teaching young children, and she needs to recognize the fact that variety in method is salutary for teacher as well as child.

Before the young teacher actually begins to work with children, it is advisable for her to observe experienced teachers at work. While she will not at this stage appreciate fully the skill of the teacher, yet through repeated visits, observations, and questions the student should come to recognize the outstanding points in the teacher's plan and techniques. It is quite possible that occasional observation of poor teaching will show the student some pitfalls to be avoided.

Study and observation will give the student the theory of kindergarten teaching, but before she is ready to teach a group of her own, the student needs an opportunity to serve as an apprentice under an experienced teacher. When we watch a skilled artist at work, we are impressed with the ease with which he creates, when we try it ourselves, the tools suddenly become clumsy, and our fingers all thumbs. So it is in observing teaching. Under the skilled teacher, the children behave and respond as they should; under the novice, they turn suddenly into problems, bent upon embarrassing the teacher. The nursery schools report that three-year-old children will "try out" the new assistant and will think of all sorts of negative behavior the moment the regular teachers are out of sight. Probably one of the things which contributes to this trying-out process of the new teacher is the fact that the children cannot sense the young teacher's feeling of inexperience and inadequacy.

Children are sometimes uncannily beyond belief in their analysis of a situation. In one instance a student teacher, who from the adult point of view exhibited marked poise, found herself in charge of the rest period. She assumed a relaxed but expectant manner and all seemed to be going well until two children began chatting. She made a gesture which was meant to signify that it would be well for one child to turn over. The child turned over and the teacher half breathed

a sigh of relief. The second child looked at the teacher, then moved closer to the first and said, "Don't pay no attention to her; she's just a young thing."

If she can succeed in having the children believe that she is the master of the situation and that she knows it, then the young teacher will probably be successful. Usually, however, it is only through experience that the teacher gains confidence in her own ability and learns the methods with which she is most successful. Some of our leaders have predicted a day when all young teachers will have a year or two of apprenticeship like the internship of the doctor, in which they gain a mastery of their essential techniques while still under the observation and wise guidance of an experienced teacher.

The Teacher in the Community. When we read that in 1926 Herbert Hoover said,¹ "The public-school teacher cannot live apart; he cannot separate his teaching from his daily walk and conversation. He lives among his pupils during school hours, and among them and their parents all the time . . . His office, like that of a minister of religion, demands of him an exceptional standard of conduct," our first reaction is to think, "How times have changed!" And yet, have they? The point which Herbert Hoover made is one basic to good citizenship. Our perspective is somewhat different nowadays, but we are still of the opinion that the teacher and the classroom should not be isolated factors set aside from the rest of society.

If we were to modernize and enlarge upon the Hoover statement, we might find ourselves saying: (1) In a democracy the public-school teacher has rights comparable to those of any other citizen. (2) There should be a vital relationship between that which she teaches and that which takes place in the world outside the classroom. (3) The teacher must know her children not only as members of her school group, but as members of families and members of a community as well. (4) Because the teacher has had certain cultural opportunities and because she has chosen teaching as a profession, she has certain responsibilities and certain obligations to the profession and to society. Now, if we were to put the old and the new side by side, we should find that each suggests essentially the same thing; namely, that there should be no

¹ Hoover, Herbert, "Education as a National Asset." *Procedures at the National Education Association*, 64, 1927, 729.

separate compartmentalization of classroom life and life outside the classroom. Whether inside or outside the classroom, the teacher should conduct herself as one worthy of her citizenship in a democracy.

Certain responsibilities there are, of course. Like the doctor, the teacher will learn much of the intimate home life of her pupils. She will be told many things about the family and the child confidentially and she must make sure that she keeps inviolate all such communications. If there is any question as to whether or not anything should be told about a child or a family, the safest procedure is not to tell it. Another safe rule is to call no names. When funny things happen in school, do not quote the child's name. The story will be just as amusing for most hearers if it is told about "one of the boys in my room" and the policy will save possible embarrassment for both teacher and family and perhaps untold sorrow for the child in question.

Accepted as an integral part of the community as she is, the teacher should try to live as a real member of that community. Some cities require that their teachers reside in the city itself and not in some near-by town. Such a rule sounds ridiculous at the outset, and yet there can be no doubt that only by living in a place do we acknowledge ourselves to be a "native" and a neighbor of our schoolchildren. When the young teacher goes to a new community, she frequently tends to compare the place unfavorably with the home town which she has just left. No one type of conversation can do more to turn the town's people against her. It is, in the first place, rude; in the second, tactless; and in the third, often destructive to the teacher's reputation as a teacher.

The teacher is ordinarily expected to participate in the activities of the community. Such participation is helpful because it brings her into social relationships with the parents, besides giving her an opportunity for a social life of her own. In some towns, however, the teacher will have to beware of too-close alliance with any one group of people. Before she allows herself to become too intimate with any particular families, she should acquaint herself with the social situation in the town. Are there strong factions? Will she lose the respect and the liking of some families if she accepts too many invitations from some others? The one definite alignment which is accepted by small communities without question is that of religion. In the city it is only

rarely that parents and teacher will happen to meet in any one church. But in towns, there will be some of the kindergarten children's families connected with each church. One of the first questions which many parents ask concerning the new teacher is "What church does she go to?" It is not necessary that the teacher attend church every single Sunday. It is quite conceivable that she may feel unable to accept the almost certain invitation to teach in the church school, but in the present day in most small communities, it is highly desirable for the teacher to identify herself with some one church.

The National Education Association¹ has developed a code of ethics for teachers. The part which applies to relations with pupils and with the community is as follows:

1. The schoolroom is not the proper theater for religious, political, or personal propaganda. The teacher should exercise his full rights as a citizen but he should avoid controversies which may tend to decrease his value as a teacher.
2. The teacher should not permit his educational work to be used for partisan politics, personal gain, or selfish propaganda of any kind.
3. In instructional, administrative, and other relations with pupils, the teacher should be impartial, just, and professional. The teacher should consider the different interests, aptitudes, abilities, and social environments of pupils.
4. The professional relations of the teacher with his pupils demand the same scrupulous guarding of confidential and official information as is observed by other long-established professions.
5. The teacher should seek to establish friendly and intelligent co-operation between the home and the school.
6. The teacher should not tutor pupils of his classes for pay.

In-Service Education. Too often teachers become so absorbed in the details of the day-by-day program that they lose sight of more distant goals. Many school systems attempt to obviate this by requiring their teachers to attend conferences, take university courses, attend workshops, travel or otherwise broaden their outlook. Nothing is much more depressing than to have a teacher in a summer-school class or

¹ *Ethics in the Teaching Profession*, Research Bulletin of the National Education Association, IX, No. 1, January 1931

workshop who persists in making it obvious that she has come because "she had to." On the other hand nothing is much more thrilling than to have a teacher say, "I came here this summer because I had to, but now that I am here I can honestly say that whole new areas of interest and understanding have been opened to me. I know my work will be twice as vital next year because of my new appreciations." The old saying, "You can lead a horse to water but you cannot make him drink" was never better illustrated than by what happens in in-service education. Just meeting certain academic requirements does not assure one that the individual has in any way (1) come to have new interests and new understandings; (2) been imbued with the scientific spirit; (3) come to have new respect for personalities; or (4) become more world-minded.

Toward all these goals the in-service teacher should be making progress whether through group study, her own thinking, reading, or social participation. The day has passed when the teacher concerns herself solely with the techniques of teaching subject matter and developing skills. Today the good teacher approaches her work scientifically. She sees her teaching efforts in relation to the total span of development. She realizes how great is the need for respect for personalities and she is essentially and perhaps above all interested in the fundamental problem of humanity and the contribution which both individuals and groups can make toward its progress.

SUMMARY

The teacher is the most important element in the make-up of the kindergarten. To be a superior teacher an individual must be a superior person who has a broad general education as a basis for her specific training. She must possess certain qualities and characteristics which enable her to work with and be liked by young children.

The student should have much opportunity to observe and work with good teachers before she tries to work with a group of her own. The teacher and the classroom should not be isolated factors set aside from society. The teacher is first of all a citizen and then a teacher. Today's superior teacher approaches her problems with scientific curiosity, has sincere respect for personalities, sees her teaching efforts in relation to the total span of human development, and is concerned with the progress of humanity in its broadest sense.

QUESTIONS AND PROBLEMS

1. Write a description of the grade-school teacher whom you liked best; of the one whom you liked least. Compare your two descriptions and see if you can draw any conclusions as to the characteristics which pleased you best.
2. Visit a nursery school and a first-grade group. Make a list of those assets which you feel the nursery-school child might be expected to bring with him into the kindergarten. Now make a list of those assets which you feel the kindergarten child might be expected to take with him into the first grade.
3. Analyze the account of the teacher who was helping John with his plane (p. 27). With how many different phases of child development was she concerned in this account?
4. Suppose that a group of the mothers of the children in your kindergarten asked you, for remuneration, to run a series of birthday parties in the various homes. From a professional standpoint, would you be justified in doing it?
5. Children love to wear pins and buttons. Let us suppose it is several weeks before the time of the Presidential election and you have dozens of the buttons on hand. Would you be justified in giving them out to the children in the kindergarten?

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Social Climate of the Kindergarten

SOCIAL climate, although most difficult to describe, is something which one senses almost the moment he steps into a room in which human beings are functioning. It is conceivable that a kindergarten could, on paper, be rated almost 100% perfect, and still it would fall far short of being an ideal kindergarten if the social climate were not of the desirable sort. The kindergarten group might be composed of an ideal number of very normal children; by inventory, everything which ought to be in the physical environment might be properly accounted for and by certification it might be that the teacher had taken all the courses which would qualify her to teach in the kindergarten. She might even have her Master's or Doctor's degree. But even with a practically ideal group and excellent physical environment and a properly certificated teacher, it is still possible that there will not be a climate in the kindergarten which is conducive to wholesome living.

Ideas Flow Freely in the Desirable Social Climate. If the social climate of the room is wholesome, one ought to be able to sense at once the fact that ideas seem to be flowing freely. One ought also to be able to sense that the media through which the ideas flow and the outward forms which the ideas take are as varied as are the personalities, interests, and capabilities of the individuals in the group. Obviously in such a case there is not simply an outpouring of ideas from a single source, namely, the teacher; but there is a flow of ideas to which both the teacher and the children contribute. The behavior of both the children and the teacher ought to be affected by the ideas. A teacher who "has all the answers" is not receptive to ideas and no matter how hard she strives she cannot create within her room a desirable social climate.



Courtesy Minneapolis Star and Tribune

Each Child Is Intent on His Own Purpose.

Ideas Accompany Problems. Ideas flow most freely in the presence of problems. Problem solving, whether it be the solving of an arithmetical, a dress, or a social problem, involves thinking and reasoning on the part of the individual or individuals faced with the problem. As adults we are inclined to overlook the importance of problem solving in child development. There is so much about the child's day that seems trivial to busy grown-ups that grown-ups in general have a tendency either to give the child no time for solving his own problems, or, in the light of their own experience, they quickly solve the problem before realizing that the situation is one which might afford the child profitable experience. If the problem is entirely obvious to the adult and not at all or but partially obvious to the child, and if the adult sees the solution immediately, he is very apt to say to the child "Do this," or "Do that." In many cases the child really does have enough background experience himself for solving the problem if the adult would but clarify the problem a bit for the child. The adult's failure to clarify problems for children results in a tremendous waste of both valuable educational opportunity and child power.

Suppose we take as an illustration of this point the case of Patrick, who is sitting at a kindergarten table on which there are several glasses of paint. One glass of paint is very near the edge. Patrick, in a somewhat dreamy mood, is painting the third leg of the chair which he has made. He is painting the same leg over and over again. The teacher sees the problem of the paint glass which is dangerously near the edge of the table and she notes also that Patrick is only seemingly occupied in purposeful activity. Quite obviously Patrick is not aware of either problem. In order to get the glass moved to a safe position and to get Patrick back to purposeful activity the teacher might, among other things, say one of the following three specific things, each of which would have the same results. She might say, "Patrick, put your paint glass back on the table and start painting the other leg of your chair," or she might say, "Patrick, put your paint glass back. It might get knocked off. Then you can start painting the other leg of your chair. You have been painting the same one over and over again." Or as a third possibility she might say, "Patrick, your glass is so near the edge of the table I think it might get knocked off." Patrick will doubtless move the glass while the teacher waits. The teacher will then shift her attention to the chair and say, "Just one more leg



Gross—State College, Cape Girardeau, Mo.

'Trouble' Just Like Grown-Ups!

to finish. We'll have to be cleaning up soon. Do you think you will be able to get the painting job finished today?"

In the first two instances the problem for the child becomes simply one of carrying out the command of the adult. In the second instance, to be sure, reasons were added, but they were added only after the commands had been given, they did not clarify the problem for the child's own solution. In the third case the child had his attention directed to the problem itself, and since the problem was twofold in its nature, the teacher tried to clarify one part at a time. Once the problems were clarified, the child's task became that of thinking out his solutions and acting upon them. The results in any one of the three cases would doubtlessly have been the same, the paint glass would have been moved to a safe position, and Patrick would have launched or perhaps it would be better to say would have re-launched himself in purposeful activity. But the actual solving of the problem by the child himself added two concomitants to the action. Patrick had experience in using his present learning in an effective fashion, and he also had the satisfaction of solving his own problems.

Problem-Solving Opportunities. Kindergarten teachers often fail to avail themselves of the many opportunities for problem solving which their organization provides. It is possible even today to go into kindergarten rooms where every detail of the day's program is directed by the teacher herself. If the observer is not aware of the values inherent in having the children meet and solve problems, then it is possible that he will be greatly impressed with the efficiency of the kindergarten teacher and the smoothness with which the program seems to progress. In the problem-solving kindergarten, we work on the theory that there is not always going to be a "superior" individual about to direct the child's every act. We feel that it is distinctly advantageous to the child to give him opportunities to make use of his present knowledge to face and solve those problems for which his present knowledge is adequate. In facing and solving his own problems, he gets into the habit of relying upon himself, and continues to make attempts to meet new situations in the light of his present knowledge. The child will make many mistakes in the process of solving his own problems, but if we can guide him so that the conclusion is sound, we feel that the efforts of both the teacher and the child have been well



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Replenishing the Sand Supply Requires Co-operative Effort.

repaid. As adults we may be pleased with beautifully finished manual products and highly organized social conduct; but we should try to keep in mind in working with children Piaget's¹ contention that "mistakes" are an essential part of the true reasoning process.

It is not to be presumed that all situations should be approached from the problem-solving point of view. That has been one of the most flagrant errors in so-called "progressive education." Those who really understand the principles of progressive education are entirely aware of the fact that in our complex civilization there are many situations for which the child could not possibly have sufficient knowledge to solve wisely many of the problems with which he is faced. The thought which we wish to stress here is simply that in the hurry and scurry of our complex civilization we too often overlook opportunities which many common experiences offer for problem solving at the child's level. The solution of a problem, no matter how simple the problem may be, is accompanied by a feeling of satisfaction. Since effort accompanied by satisfaction is the thesis of one of the primary laws of learning, it is not difficult to comprehend why the free flow of ideas which accompanies problem solving is a factor conducive to the establishment of a desirable social climate.

Environment and Maturity Level of the Group. The degree to which the environment is adapted to the maturity level of the group is a second factor which contributes or detracts from the desirable social climate. In the environment there should be a wide variety of challenges to meet the range of developmental levels represented in the group. From our environment, no matter how rich it may be, we get only that for which we are ready. A group of advanced mathematicians might be challenged by being set down in an empty room in which there was nothing but involved equations inscribed on the walls; but it is scarcely conceivable that such an environment would be a challenge to most of us. And so it is with kindergarten children; the environment must offer something which will challenge the various members of the group. The child needs to find tangibles in his environment which will help him to find new meanings and new modes of expression. Through his contacts with tangibles, whether in

¹ Piaget, J., *Judgment and Reasoning in the Child*, Harcourt, Brace & Co., New York, 1928.



Gross—State College, Cape Girardeau, Mo.

There's Satisfaction in Doing Real Work.

the form of people or of things, the child is faced with problems whose solutions bring him new understandings.

Sources and Organization of Knowledge. If the child's present knowledge is not adequate for the solution of his sensed problems, then new sources of information must be tapped. Sometimes the teacher serves as the guide by whom the child is directed to new knowledge and sometimes she is actually the source of the new knowledge itself. Whether guide or source, she tries to plan so that the new information can be interwoven and meshed with old learnings. In the old school it was not uncommon to observe the teacher giving out information wholesale. The brighter children seized upon it and built for themselves great towers of learning. The less able were unable to fit it even into lesser towers of learning. They just had to let it fall about, making nothing but clutter and confusion for their minds. In our newer schools the teacher tries to help the child fit his information and learning together so that he can form not any great towers of learning but so that he can build for himself strata of learning. The broader and thicker the base, the better foundation he will have for later learnings. In the tower concept of learning, we note that the child builds many isolated towers, all of which may be quite impressive from the observer's point of view. But on scrutiny the observer will find that all new learning has to be on a new base or else it must be added to a tower whose base is not broad enough to support it. If we could come to think of education on a strata rather than a tower basis, it is possible that that alone would do much toward helping to establish a desirable social climate in the kindergarten.

Running Account of a Kindergarten Visit. The following paragraphs present a somewhat sketchy running account of a morning in a kindergarten. As you read them, try to pick out those elements which suggest that (1) ideas seem to be flowing freely; (2) the children are faced with problem-solving situations; (3) the environment, both social and physical, has within it that which is challenging; (4) the teacher is helping the children to build new learnings into strata, rather than tower formations; and (5) the teacher, though aware of the needs and strivings of the individuals in the group, does not sacrifice the good of the group to the good of the individual.

A HALF DAY IN KINDERGARTEN

School XXX

Date of observation April 26th

Duration of session: 8:30 to 11:30

Approximate date on which this group was enrolled in kindergarten:

September 16th

Approximate age range: 5 yrs. 6 mo. to 6yrs. 1 mo.

No. of children enrolled: 12 girls, 13 boys

No. of children present: 10 girls, 13 boys

No. of teachers: 1

Socio-economic background of the group represented by the proportion coming from homes of professional men: 10, business executives: 6, tradesmen: 5, skilled labors: 4, day laborers: 0

Health inspection: The children are checked by the nurse before coming into the kindergarten room.

8:30 The kindergarten teacher is mixing paint and putting fresh paper on the easel. Jimmy opens the door and says, "Good morning, Miss B. Can I paint?" "Good morning, Jimmy. Things are all ready. You know where paint smocks are kept, don't you?" Jimmy smiles, puts his sweater and cap in his locker, and comes back to the easel pulling on a smock.

Four more children appear in the doorway, wave to Miss B. and go to play in the outside sandbox. Miss B. props open the outside door to supervise both inside and outside activities. Peter comes in with his older sister, who says, "Peter didn't get to sleep last night until eleven o'clock. We had company." Miss B. says, "Thanks for telling me. Peter, if you feel tired or cross today, we'll know that you need some extra rest, won't we?" Peter takes off his things and joins Jimmy at the easel. He watches Jimmy outline a blue house with windows and doors and struggle to paint a gabled roof. Beside the house Jimmy paints what might be a robin. The robin is the size of the house.

Betsy, Joan, and Perry have come in and are playing in the doll corner. Perry is "sent to the store" for some Pablum for the baby. Jeffrey and four cohorts have arrived and are building an airplane with outside blocks and planks. Barbara and Jean are sitting at a small table, coloring. Barbara is making a picture of a bluebird, and Jean is trying to copy her idea.

Gretchen and Peggy go directly from the locker to the cupboard for puzzles. "Oh, look!" says Gretchen, "Mine is a new one. It looks like a hard one." Miss B. says, "It is a hard one. I put it on the shelf just this morning. I wondered if there would be anyone in this group who could work it." "Bet I could," says John, swaggering over and practically snatching it out of Gretchen's hands. "After Gretchen finishes, why don't you take a turn?" suggests Miss B. John releases his hold on the puzzle and goes over to the jungle gym, hangs upside down, swings back and forth, then climbs to the top and pretends he has a telephone. "Bombardier to pilot. Bombardier to pilot." Archer joins him. They talk together a minute, then rush to get their helmets, and the play continues. Miss B. walks to the jungle gym. Glancing up at the ceiling she says, "You won't forget about how close you are to that upstairs floor, will you? They're trying to study in that room, you know." "OK," says Archer, and drops his voice to a lower level.

9:00 Miss B. stands near the door offering a suggestion here and a word of approbation there. Jeffrey and Billy each have ideas about the wingspan of their plane. Jeffrey tries to explain his idea to Billy, but Billy picks up the board and runs off with it. Jeffrey and Danny force Billy to give up the board, but not without a struggle. Billy takes a good right swing at Jeffrey. "Miss B.," says Danny, looking at Jeffrey, as he holds the board in one hand and rubs his chin with the other, "Don't you think Billy had better go inside?" "Maybe so," says Miss B., "at least until he gets control of himself and can make it pleasant for others." She nods in the direction of Billy, and Billy plods heavily toward the door, Miss B. following. Billy hangs up his jacket and stands by his locker, looking sulky. Miss B. says, "Better get washed up and maybe you'll feel more like yourself. It wasn't a very pleasant experience you had, was it?"

9:20 Billy washes, then stands in the washroom door. "What are your plans?" asks Miss B. "Haven't any," says Billy. "In that case," says Miss B., "perhaps you had better get your rug so you can stretch out and get really relaxed. You'll be able to plan better when you feel relaxed." Billy spreads his rug by the library corner, and stretches out. He stays there about five minutes, rolls up his rug, and goes to get paper and crayons from the cupboard.

Janice has been wandering about the room ever since she put her sweater in her locker. Miss B. has been observing her, but has said

nothing. Finally she says, "Janice, if you're not busy, would you see about sorting these crayons? The blues and the purples and the blacks seem to be mixed up." Janice picks up the pan of black crayons and Miss B. places the purple and the blue box on the table. Janice looks at a purple and then at a blue. It seems to be difficult to tell one from the other. "Maybe if you had a testing paper, it would be easier to tell those blues and purples apart," says Miss B. Janice goes to the cupboard and brings back a piece of scratch paper. Barbara passes the table and says, "What are you doing?" Janice does not answer. Barbara turns to Miss B. and says, "May I do it, too?" Miss B. says, "You'll have to talk that over with Janice; she's on the job now." Janice calls out, "Get another piece of paper so you can tell which is blue and which is purple." Barbara brings a piece from the cupboard and the two girls visit together as they sort. Miss B. says, "How lucky! You're just finishing your sorting and it's time to get things put away. The children will certainly appreciate having those colors in the right boxes. Thank you!"

The cleanup word passes along. One by one, materials are put away, toilet needs are taken care of, and hands are washed. Miss B., with a wave of her hand, has signaled to the children outside that it is time to come in. As she signals, she notes that the boys seem to be doubtful as to whether they really are coming in or not. Miss B. picks up one end of a long board and says, "Tom, if you'll help me with this, then if Jeffrey and Danny will be responsible for the other blocks, we'll have everything taken care of." She hands the children in the sand box a basket for their toys, and promises to hand out a broom so that they can sweep around the sand box. Dorothy volunteers to be the sweeper. Miss B. starts to go in, saying, "I'll see you inside soon. Some children are practically ready for the meeting right now." Miss B. hands Dorothy the broom, washes her own hands, and joins those children who are standing by the piano. She plays a gay tune, and they sing as she plays.

9:30 All toys and materials are back in place, and all the children except two are seated on the floor by the piano in front of the teacher's low chair. Dorothy is still sweeping outside, and Jean is struggling to get some crayon marks off the table. While they wait for the two children, they enjoy a "true-false" game. Miss B. says, "Beans grow under the ground." Since the statement is not true the children give

one clap. Next, "Peas grow on vines." Since the statement is true the children raise their hands. "Oh, oh," says Miss B., "Jeffrey, you forgot to wash your hands. Don't forget your chin. That was a dirty hit you got this morning. But you certainly handled the situation well! Congratulations!" "By the way, Billy, after you got rested and relaxed, you really got hold of yourself, didn't you? That ship picture you are working on is a beauty. When it's finished I hope we can have it up so everyone can enjoy it." Billy raises his downcast eyes and says, "It'll be finished tomorrow. I'm going to work on it the first thing I get here in the morning."

The children take turns before the group to tell of interesting findings they have made in regard to the arrival of spring and of preparations for the kindergarten garden.

9:50 As they leave the discussion group, each child goes off with a purpose. Jim and Bill go to the workbench to make markers for the garden rows. Ten go to get plasticine to make models of the things needed to get the ground ready for gardening. Three choose to draw pictures of how they would like to have the garden look. Barbara asks if she may paint her idea of the garden. Jean also wishes to paint, but Miss B. suggests that in her locker Jean has a doilie with spring flowers on it which she hasn't finished. Jeffrey volunteers to print signs which "you can read so you'll know what you planted." He gets his paper and crayons, then asks Miss B. how "peas" would look. She prints it in manuscript, and he copies it. Then he takes it to the boys at the workbench and consults them as to how they can best fasten his paper onto their sticks. They decide to tack it on. Three children have produced unfinished work from their lockers.

10:30 As the children finish their work, they clean up, go to the toilet, wash, and go to the library corner. About half of the children are still at work. The teacher plays a slow, quiet signal on the piano, and everybody stands at attention. The teacher asks those who have not finished to put their unfinished work in their lockers, and to join the others in the library.

10:50 All are in the library. Individual books have been put back into the bookcase with "the bindings pointing out," and the group is seated on the floor in front of Miss B., who is holding up a copy of *The Little Gardeners*. They look at the pictures together, and then Jean says, "Read it." First they observe that in two places it says *The*

Little Gardeners. Miss B. runs her finger under both captions. "Now if everybody is comfortable, I suppose I can begin." There is much settling back and some fussing about not being able to see. Miss B. waits quietly; everyone is settled. Now she begins to read, holding the book so that all can see the pictures. After the story, the children stretch up tall and go over to the piano.

11:10 The children ask for a skipping tune. Miss B. plays with clear accent, but light tone. As the music stops, they stand where they are and listen to the next music, which they have never heard before. They look puzzled and then begin to swing into many varieties of responses. Some show much feeling for the music, and others indicate that they merely feel they should be doing something. Those who do not have the feeling for the music begin to act silly, crowding together and bumping into one another. Miss B. stops the music and says, "Will you all sit down just where you are?" Then Miss B. says, "Archer, John, Betsy, Nancy, and Jean, would you show us the dances which you made up to that music? I think the rest of the group would enjoy seeing them." The five children dance freely, seemingly oblivious of anything but the music. All the children try again, many of them reflecting the patterns of the five. Betsy asks for "The Brownies." She is asked to choose five children for the dance. After much counting and recounting the dance proceeds. The observing audience chuckles with delight.

11:30 The children are all seated by the piano. As request numbers they have sung "Tirra, Lirra, Lirra," "Now at Last Winter's Past," "He Dug His Garden," "Swinging," "Roller Skates," and "It's Raining." Then Miss B. plays some music which she had played for them yesterday. The children recognize it as the new music and ask her what the song is about. She tells them it is about a Maypole. They chat about a Maypole, many confusing the word with "maple." Miss B. clarifies the meaning and then sings the song for them. They listen and join in. Some have difficulty with the whole song, so Miss B. sings a single phrase and then they sing it with her. Now she sings a single phrase and they sing it back to her. Now they put the whole together. Barbara says, "Maybe we could have a Maypole dance in our kindergarten." With that thought for future planning, the children go in small groups to get their wraps.

First Miss B. asks all those who wore coats to get their wraps, then

all those who wore jackets, then all those who wore sweaters, and last of all those who wore no wraps. As they slip into their wraps, they say casual good-bys and disappear through the playground door. Kindergarten's over—until afternoon, when a new group will arrive!

Has it been too difficult to find examples of the five elements sought for? No! Certainly ideas were flowing freely; there were innumerable situations in which the children found themselves faced with problem-solving situations; the environment, both social and physical, was filled with challenges; the teacher seemed sincerely interested in helping the children tie new learnings into old experiences; and at no time did the teacher appear to sacrifice the good of the group to the good of the individual

The Artist Teacher. The teacher who is able to create within her room a social climate which approaches the ideal may well be called the "artist teacher." To the untrained observer the artist teacher often appears to be but an interested onlooker. In one sense she is just that; but in another sense she is ever so much more than an onlooker. In the light of her observing and looking on, she guides the children so that they can grow in their ability to gain meaning and understanding from their experiences. She knows just when and under what circumstances she should share with the child bits of her greater fund of information. Always she shows a marked degree of empathy for children and she is keenly aware of those values which are of significance to the individual child. She is aware of the individual's strivings, but she does not sacrifice the good of the group to the individual. Somehow, through her own artistry, the good kindergarten teacher is able to grasp the total group situation without losing sight of the many individual problems and strivings within the group.

Evaluating the Social Climate. It is difficult for the individual teacher to evaluate the social climate within her own group. But, if on any one day a kindergarten teacher has reason to feel that she has succeeded in being a true friend to the children, if she has been able to create a fitting balance between freedom and responsibility, if she has been a wise leader, a thought-provoking guide, an honest contributor, a just critic, a fair judge, a wise counselor, a co-operative aid, an enthusiastic participant, a source of sound information, and an

understanding and efficient executive, then she may know that on that day at least the social climate of her room has approached the ideal. There are few such days in the lives of the best kindergarten teachers, but the satisfaction which they bring makes the ideal distinctly worth the struggle.

SUMMARY

The social climate in the kindergarten is something which one senses immediately upon entering the room. If the social climate is desirable, ideas will be flowing freely, the children will be using their present knowledge to solve their own problems, and the teacher will be both a guide to and a source of further knowledge. The artist teacher creates within her room a social climate which approaches the ideal.

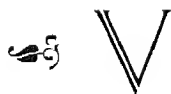
QUESTIONS AND PROBLEMS

1. Why would it be impossible for the teacher who is not receptive to ideas to create a desirable social climate in her room?
2. Visit a kindergarten and (a) note the instances in which the teacher made use of available problem-solving situations and (b) note those problem-solving opportunities which were overlooked or ignored.
3. How would an environment which might be challenging to five-year-olds differ from one which might be challenging to two-year-olds?
4. Cite an instance either from your kindergarten observation or from your own early school experience in which you would feel that "towers of learning" had been erected.
5. In the running account of a kindergarten morning included in this chapter, did you note any instance in which the teacher tried to give the timid, withdrawn child an occasion to be a leader? Who was the child?

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Provision for Physical Welfare

THE kindergarten was the first division of the school system to stress the importance of the physical health of its children. Even now, the kindergarten is more concerned with health than are the grades in most schools, and with good reason. In the first place, a prompt discovery of physical weaknesses and deficiencies is essential because the younger the child is when remedial treatment is begun, the greater is the chance for success in the treatment. In the second place, it is important to arouse parents early to the realization of what may be done to improve the physical well-being of any young child. Never again, in all probability, will the parents be so solicitous for the child's physical health. Later on, school grades or gracious manners or tidiness of dress may appear of overwhelming importance to a parent who has become inured to a seemingly slight speech defect or jerky gait. The actual diagnosing of difficulties is, of course, the province of the school doctor or nurse, the actual treatment that of the family's medical consultant. To the teacher and the parents falls the lot of providing a safe, hygienic, wholesome environment for the child to grow up in, and of making every possible provision for the child's general physical well-being.

Safe Buildings. While there is ordinarily little or nothing which the individual kindergarten teacher can do about the building or her classroom, yet it is essential that she know what is really adequate and where improvements should be made if possible.

The most important item in the construction of any public-school building is that of safety. Since, for most parts of the country, the greatest danger lies in the possibility of fire, it is essential to have fire-proof walls and stairways in school buildings. The heating plant



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Health, Happiness, and Contentment

should be protected by asbestos or metal and shut off from the rest of the building by fireproof doors. More than this, the doors of the building should swing outward, there should be ample provision of fire escapes and fire extinguishers, and the halls should be equipped with fire alarms. It is perhaps needless to add that fire drills should be held with a frequency sufficient to give the children (and the teachers) practice in the routine expected from them at the sound of the alarm.

The second important source of danger in school buildings is the stairway. The stairs should be wide enough to prevent crowding and pushing on ordinary occasions, with landings arranged at sufficient distances to discourage jumping from one to another. Every stairway should be provided with handrails on both sides, and most important of all, every stairway should be well lighted. If the steps are covered with rubber, or have metal bands at the edges, great care should be taken that these are kept in excellent condition. Many a serious fall has resulted from the catching of a foot in the metal edge or in worn covering.

Outside Play Space. The kindergarten room should either have its own entrance from the outside or it should be located near the main entrance of the building. It is highly desirable that an exit from the kindergarten should lead directly onto a protected or secluded play yard so that the activities of the kindergarten day can be carried on either in or out of doors. If there is outside storage space for such equipment as hollow blocks, building boards, wagons, tricycles, sand toys, etc., then much of the work and many of the hazards of taking equipment in and out will be obviated.

Hygienic Kindergarten Rooms. Children of kindergarten age need plenty of space. They will be spending much of their time moving about and much of their time, perhaps, in rather noisy activities. If they are expected to work in a place crowded with other children and with no opportunity for quiet and the semi-privacy which they have known at home, then their adjustment to school ways will be much more difficult.

It has been suggested that there should be between 35 and 50 square feet of floor space per child. This estimate is exclusive of

washroom and locker-room space. That means, then, that in a kindergarten room to be used by twenty-four children there should be approximately 1200 square feet of floor space. A room which is slightly longer than it is wide is a little less formal and stiff looking than a square room, and it is casier to subdivide such a room into interesting units.

Heavy battleship linoleum, slightly mottled but not highly figured, still heads the list as being the most desirable floor covering. Rubber, cork, and asphalt tiles would seem to be more desirable, but it is found that with the constant moving of chairs and tables the tiles are apt to loosen and crack. The kindergarten floor should be kept clean. There are many occasions during the kindergarten day when much confusion and noise can be avoided if the children are permitted to sit on the floor instead of being required to drag or carry their chairs from one place to another. No child, however, should be required or allowed to sit on a dirty floor. The floor should be scrubbed frequently. A heavily waxed and beautifully polished floor may be the pride and joy of the janitor's heart, but it detracts rather than adds to the comfort and safety of the children.

Climatic conditions will be a factor to consider in planning for good lighting. Generally speaking, a southern or eastern exposure is to be preferred to a western exposure, and a northern exposure has nothing in its favor. The window area should come to approximately one fifth of the floor area. The windows should be low enough so that the children can see the outside world as they go about their work and play. Again, climatic conditions will be a determining factor in the type of window which would be most desirable in a kindergarten. In warm climates it would be highly desirable to have windows of shatter-proof glass extend to the floors, so that they might either be rolled or folded back—thus providing, at times, an open side to the room. In the North, it would be distinctly undesirable to have this type of window, for the cold air would all too easily find its way into the room and across the floor. Wherever possible, there should be windows on two sides of the room. Pull shades, Venetian blinds, and washable draw curtains each have points in their favor.

Adequate light for dark, cloudy days can best be provided for by fluorescent lights so arranged that they afford a mellow, diffused, non-

glare radiance. In regard to the intensity of light¹ there seems to be considerable disagreement. It is probably safe to say, however, that a minimum intensity of 15-foot candles would be satisfactory for the illumination of the kindergarten room.

Walls should be finished with a nonglaze paint which can be easily cleaned. The color of the walls will depend to a great extent upon the room exposure . . . Soft greens or any of a variety of delicate pastels may well be used in rooms which get much sunshine; but in rooms with a northern exposure it will be wise to use only the strongest of light-reflecting colors. Yellow in its various tints will best compensate for lack of sunshine in the room. In general it is best to leave the walls plain and to provide wall decorations in the way of pictures and hangings which can frequently be changed. The woodwork of the room is easy to clean and pleasing to look at when painted with a glossy but not too glossy enamel in soft neutral tones.

Individual locker space should be provided either in the main room or in space immediately adjoining the main room. It is desirable that the lockers should be large enough and so constructed that they could conveniently hold both the child's work and his outside wraps, including rubbers and boots. Obviously it would be practical to have the locker space located near the entrance door.

Every kindergarten needs a toilet and washroom of its own. Five-year-olds cannot be expected at the beginning of the kindergarten year to be wholly independent in taking care of their toilet needs. The location of the toilet and washroom should, like other parts of the kindergarten unit, be such that it can be easily supervised by the teacher. In some kindergartens separate toilet facilities are provided for the girls and for the boys. This would seem to be desirable but certainly not wholly necessary.

A drinking fountain in the room encourages children to stop for drinks whenever they feel the urge, and it does away with the business of waiting in line for the single drink of the morning or afternoon.

A work or play room adjoining the main room, if architecturally constructed so that the activities in the two rooms can be easily ob-

¹ For further details and a discussion of school lighting, see Chapter VIII in the *Review of Educational Research*, 1942, 12, No. 2:211-220. Also see Tinker, M. A., "The New Standards for School Lighting," *School and Society*, 1939, 49: 95-96.



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For Every Child a Locker

served by one adult, offers many advantages. This room can be used in any number of ways; in some schools it serves as a woodworking room, in others the room is used as a paint shop, and in still others the apparatus for large muscle activity is set up in it. To whatever use it is put, and it can be used in a host of ways not mentioned here, it tends to lessen group tensions by distributing children and more or less segregating certain types of activity.

Ventilation. To a certain extent the kindergarten teacher can control the ventilation of the room, although her efforts may have to be limited to enlisting the co-operation of the janitor. She can at least try to keep the temperature of the room between 67 and 70 degrees Fahrenheit and to keep the air fresh, guarding against direct draughts in the colder months while encouraging circulation of air on all days. The teacher can prevent the accumulation of much dust in the air by keeping the room as clean as possible and by teaching the children to avoid activities which are likely to raise dust. Clapping the blackboard erasers together, waving rugs or outdoor wraps around, tracking in mud, and vigorous sweeping, will fill the air with dust.

Ordinarily there is little which the teacher can do to modify the humidity of the schoolroom. Most schools are forced to accept the degree of humidity present in the outside atmosphere. If there is any humidifying system in the building, the teacher should acquaint herself with its control and learn whether or not she has any responsibility for its functioning.

Protection from Hazards. Although the teacher can seldom make radical changes in the environment, she can sometimes report certain conditions which menace the health or the safety of the children. Treacherous dark stairways, unguarded, hot radiators, unsanitary drinking fountains, exposed electric wires, and the like must be avoided. If such perils cannot be removed, the teacher can do much toward showing the children how to protect themselves. Children of five are mature enough to have learned the dangers of certain common pieces of equipment, and yet many come to school surprisingly unable to care for themselves in a strange environment.

At kindergarten they can acquire the habit of handling scissors and tools in such a way that maximum safety is provided both for them-

selves and for the others. They can learn to beware of such things as sharp splinters, broken glass, torn bits of wire, and rough edges of tin cans. And they can come to appreciate the dangers involved in such activities as playing at the head of stairs, approaching too near the child who is swinging, interfering with others when they are doing gymnastic stunts, or daring less able children to perform feats of which they are not capable.

Every year we read in our papers accounts of young children who have become temporarily lost on their journey to and from school. If the "lost" child can tell his name and address, then the police or other adults can easily direct him or take him to his home. Early in the year the kindergarten teacher would do well to assure herself that each child knows and can state clearly both his name and his address.

Rural and city children both need to know certain specific things about sharing the highway and the streets with others. The rural child will need to know that in walking on the country road he is expected to keep to the left side of the road so that he will be facing approaching cars. The city child will need to be familiar with the pedestrian traffic rules of his particular city; but, first, and above all, he needs to know that streets are for traffic and not for play. When he crosses a street he should do so in a businesslike fashion, avoiding either lagging or running and darting into the street. The kindergarten teacher can help the children to see the necessity for traffic requirements by taking the children on excursions and by stimulating discussions and dramatic play in which traffic regulations are featured.

Five-year-olds seem unusually interested in fire and matches. They should be given opportunities to learn of the cautions which must be exerted in handling matches and fire. Electricity has come to be such a common source of light, heat, and power in most homes that its proper use should be something of which kindergarten children should be aware. The investigating six-year-old who was caught just as he was about to plunge the electric heater into the bathtub to see if it would make the water boil, should have learned its proper use before he reached this point.

Physical Examinations of Children. In many of our larger cities, the school system conducts a "summer roundup" in which the children who expect to enter kindergarten in the fall are examined by a

physician. Such an examination sometimes reveals defects which may be remedied before school opens. It should also inform the teacher as to what kind of group she will be expected to teach, and should warn her of individual children who will need particularly careful watching throughout the year.

If it is impossible to obtain a physical examination of a child before he enters school, it should be possible to obtain one soon after school opens in the fall. Many schools invite the parents to be present at the examination so that the doctor can at that time call attention to difficulties which need treatment or further observation. Sometimes the teeth are examined at the time of the physical examination; sometimes the school dentist or dental nurse makes a separate examination at another time. Parents should be warned that the baby teeth, as well as the permanent ones, need to be kept in good condition.

During the year it is desirable to have monthly or bi-monthly measurements of the child's height and weight. If a child of kindergarten age loses weight or fails to gain over a period of several months, a complete physical examination is in order.

Contagious Diseases. For many years the public schools have stressed the importance of regular attendance. Although it is quite true that the child will benefit more from his school if he is present every day, there is another side to regular attendance which has frequently been overlooked. If a child attends school when he does not feel well or is actually ill, two important questions arise. In the first place, is the child himself profiting more from this one day's schooling than he would from remaining at home indoors or in bed? He may "learn" more on this one day by remaining in school, but the added loss of physical vigor caused by going to school when he should receive rest and special care may mean a number of days of lessened ability to learn, with the result that he may at the end of the week actually know less than he would have if he had rested on the day he was ill.

In the second place, the school is trying to offer the greatest good to the greatest number of pupils. With such an aim we have to consider the effect of absences not only on the child in question, but upon the rest of the class as well. Suppose, for example, that Johnny appears at school one day with a fresh cold. He sneezes his way through the day and is able to absorb perhaps only a little less of the

schoolwork than he would ordinarily have done. The day has not injured Johnny to any great extent. Within a day or two, however, Johnny has broken out in a rash and is in bed with a severe case of measles. That is unfortunate for Johnny, though his mother perhaps rejoices that since she didn't keep him out of school for his "cold," he is missing no more of school than is absolutely necessary. But how about the rest of the class? In all probability, ten days after Johnny's appearance with his "cold," ten or a dozen of his playmates are out of school with measles, too. Thus we must rate the expense of Johnny's attendance at school on one or two days when he didn't feel well, not only against the schoolwork he would have lost if he had stayed at home on those days, but also against all the time which his classmates have lost as a result of their contacts with him. With a balance sheet of this kind, Johnny's attendance at school proves to be highly expensive.

The records of the United States Public Health Service show an enormous number of school absences due to colds. The number gets steadily less as the children grow older, but for the younger ages, it is really appallingly large. May it not be that if every child with a fresh cold were kept home for a period of three days, we could prevent the spread of colds? Perhaps we could cut down the length of the individual cold by giving it treatment early instead of waiting until the child feels really sick. Even if the regulations of the school do not permit the exclusion of a child because of a cold, the kindergarten teacher can often suggest to the mother that the child would be better off at home, and so bring about a voluntary exclusion of the ill child.

The alert teacher can do much to prevent the spread of contagious diseases. In schools in which the nurse sees a child only when he returns to school after an absence or when the teacher refers him to her for examination, the teacher has a big responsibility for the prevention of contagious disease. She should keep herself informed as to the prevalence of disease in the community. Although such information may come through the daily papers, usually there is no report on chicken pox and measles. The teacher can acquaint herself with the illnesses prevalent in the school. Often important information can be picked up by overhearing the children's conversations, which may include such items as "my brother is sick with speckles all over him," "the people upstairs have a sign saying you can't come in," and the

like. At a time of recognized epidemic, the teacher will naturally be alert for signs of the disease in question, but at all times she must be quick to recognize certain conditions as suggestive of contagion and as sufficient excuse for sending the child to the nurse for examination.

In attempting to exclude cases of contagious disease, we must remember that many illnesses start as a common cold, with watery eyes, running nose, sneezing, and inflamed throats. Other symptoms of illness which every teacher should be quick to recognize and report are: the flushed face and hot dry skin of the feverish child; the spotted face, neck, or chest, and perhaps the itching of the child with a rash; the vomiting or abdominal distress of the child with a digestive disturbance; and such general symptoms as discharging eyes, ears, or nose, and indications of pain, particularly in the head, ears, or stomach. Other very early indications of oncoming illness are obvious to the experienced teacher in the changes in a child's behavior. Any type of behavior which is unusual to a particular child deserves close observation. Lassitude in the ordinarily alert child, irritability in the ordinarily placid child, sensitiveness in the ordinarily well-poised child, and depression in the ordinarily happy child should call for further investigation or at least for careful watching for the next few days.

While the kindergarten teacher should not consider herself qualified to diagnose an illness, there are times when the school nurse and doctor are difficult to reach and when a mother wants an immediate answer to her question of how long her child must remain out of school with chicken pox, or how soon he is likely to come down after an exposure to measles. For the sake of such demands, the following section presents briefly facts which a kindergarten teacher should have at the tip of her tongue, or at least at the tip of her fingers.

CHICKEN POX

Incubation period: fourteen to twenty-one days.

Onset: usually slight fever, eruption in twenty-four hours.

Isolation period: ten days or until disappearance of scabs.

DIPHTHERIA

Incubation period: two to five days, occasionally longer.

Onset: sore throat, fatigue, chilliness, aches and pains, fever; child seems sicker than his temperature indicates.

Isolation period: until two consecutive laryngeal and nasal negative cultures have been obtained.

GERMAN MEASLES

Incubation period: fourteen to twenty-one days, usually about sixteen.
Onset: rash, swelling glands, symptoms of any acute infection.
Isolation period: four to seven days.

INFLUENZA

Incubation period: one to three days.
Onset: fever, headache, fatigue, cough.
Isolation period: while fever lasts and until active symptoms subside or seven days from onset.

MEASLES

Incubation period: about ten days, the rash usually appearing on the fourteenth day after exposure.
Onset: fever, cough, watery eyes, running nose, rash on third or fourth day
Isolation period: ten days or until skin lesions have cleared up.

MUMPS

Incubation period: twelve to twenty-six days, usually eighteen days
Onset: swelling of gland below and in front of ear, sometimes limited to swelling under jaw, usually one side at first.
Isolation period: seven to ten days after swelling has subsided.

POLIOMYELITIS

Incubation period: about seven to fourteen days
Onset: headache, fever, sore throat, stiff neck, nausea, vomiting, and loss of appetite.
Isolation period: not known, but probably at least two weeks after the onset, perhaps longer.

SCARLET FEVER

Incubation period: one to nine days, usually three or four, rarely longer than seven.
Onset: vomiting, fever, sore throat, rash in twenty-four hours.
Isolation period: three weeks and until mucous membranes become normal and there is no abnormal discharge from nose, throat, or ears. School children should remain out of school for at least one week after release of household quarantine.

WHOOPIING COUGH

Incubation period: seven to sixteen days.
Onset: cold, cough followed in two or three weeks by a characteristic cough, usually occurring paroxysmally at frequent intervals and often accompanied by vomiting.

Isolation period: three weeks after appearance of paroxysmal cough or whoop.

Skin Infections. Impetigo, scabies or itch, ringworm, and eczema are all common in the early school years. All except eczema are contagious and all should be referred to a physician for treatment. Certain children may have hives occasionally. Hives are not contagious and disappear usually without treatment. If the mother or the school nurse reports that the child has hives the teacher need not worry beyond making sure that the child is under the advice of a physician to insure against a mistaken diagnosis.

Minor Mishaps and More Serious Injuries and Illnesses. If there is a full-time nurse on duty in the health unit of the building, then all minor injuries such as scratches, cuts, bruises and scraped knees should be cared for in the health unit. If, however, the nurse is not on full-time duty, it would be more practical for each kindergarten to have its own supply of first-aid materials and for each kindergarten teacher to be prepared to treat those injuries which might be classified as minor mishaps. The first-aid equipment for the room should be stored in an airtight cabinet. Each cabinet would be stocked in accordance with the individual school regulations. The stock might be expected to include such items as the following: "Band-aids," sterile bandages of varying widths, adhesive tape, a few sterile gauze packs, tincture of merthiolate, alcohol, boiled water, butesinpienate ointment for burns, swabs in a sterile airtight jar, and sterile needles, tweezers, and scissors.

In most cases the kindergarten teacher's major responsibility for the sick or seriously injured child is that of establishing contact with the home. For this reason, if for no other, the teacher should have available the parents' home and business phone numbers as well as the name and phone number of the family doctor. The teacher makes the contact with the doctor only if she has the parents' written permission to do so, and then only if she is unable to get in touch with the parents and if the emergency of the case seems to demand that the child have immediate medical attention. Somewhere in the school setup there should be provision for caring for the child until such time as the parents can call for him. It would be desirable for each kinder-

garten to have at least one cot and blanket on which the sick child could be isolated from the rest of the group.

Health Habits. Besides doing her best to protect the child, the teacher can help the child learn to protect himself, by establishing desirable health habits. Every child needs a considerable intake of water each day. If the school does not provide a good drinking fountain, the children should learn how to get a clean drink of water, either through the use of paper cups or by learning the best way to use the inferior, bubble-type of fountain still found in many schools. Every child has days when he needs a handkerchief. The teacher is quite within her rights if she asks the mother to supply her child with a handkerchief or cleansing tissue. For emergencies, the school should be supplied with paper handkerchiefs, as well. All the children should learn to cover their mouths when they sneeze or cough, and to wash their hands with soap before eating and after using the toilet. If the child is making his first acquaintance with paper towels, he will probably need a little instruction and practice in the best way to dry his hands. Habits for the preservation of health may be built up directly through practical application and discussion and they may be emphasized through dramatic play.

One of the most important health habits which a child can acquire is that of keeping hands, clothing, pencils, and everything else except food out of the mouth. Most diseases are spread easily by the route of hand to mouth. Toys which are held in the mouth, like horns and mouth organs, have no place in the kindergarten.

The carry-over of health habits from school to home is not great unless the parents and teachers co-operate. Too often at this age the child seems to feel that he has one set of standards for home and another for school. Occasional discussion of the desirability of an early bedtime, a darkened, well-ventilated sleeping room, the importance of milk and vegetables in the diet, and the desirable effects of outdoor play may have an effect upon the home behavior of the child, but it is probable that the effect will not be great unless the standards of the home and school are somewhat comparable.

Healthful Activity in the Kindergarten. The kindergarten child is at an age when he demands and needs considerable activity. Spending

the entire school session sitting quietly in a chair is very hard work for a five-year-old, and a requirement to which he should not be subjected. He needs for part of the time, at least, active play involving the big muscles of the body. If the kindergarten room boasts a jungle gym or a climbing rope, or a ladder up the wall, or a slide, or merely a platform with steps at either end, and if the child feels free to relieve his cramped muscles occasionally by a lively scramble over such a piece of apparatus, many behavior difficulties will be forestalled.

The younger the child is, the shorter the length of time during which he can maintain his attention and interest. Experiments have shown that if the activity is varied, the attention can be held longer than if it is a monotonous repetition of one act. Generally speaking, fifteen or twenty minutes is a maximum for the duration of a kindergarten activity. In a work period where the child is doing now one thing and now another, though all related to some one project, the time may be extended to an hour or so without much loss of interest or attention. In planning the program for the day, the teacher will remember that active periods and quiet periods should alternate so that the child gets the full benefit from each. If one active period follows another, the second is not a real rest from the first. The child who is fatigued is often irritable and unhappy. He is also more susceptible to disease, and for that reason we must include prevention of fatigue as part of our health program for the kindergarten. Such prevention of fatigue is accomplished by planning reasonably short periods for each activity, by alternating active and quiet periods, and by providing real rest periods in which the child learns to relax.

SUMMARY

The school building should be fireproof and as free from other hazards as possible. The kindergarten room should be arranged so as to provide sufficient space, good light, and fresh air of the proper temperature. It is desirable that there should be an exit leading directly from the kindergarten room to the play yard. When dangers cannot be avoided, the children can be taught how to behave in their presence. Children need physical examinations early in the school year and need constant observation for symptoms of contagious diseases and fresh colds. The teacher should be prepared to care for minor injuries of a superficial nature and she should also know what

to do in case of illnesses and serious accidents. Much can be done in the school by way of helping children to acquire desirable health habits. However, mere verbalization about health habits will do little good. The school environment must be such that the habits can be put into practice, and home and school must co-operate if the habits are to be carried over into the home. The kindergarten program should provide for alternating periods of activity and quiet: the five-year-old needs and demands activity; he needs also rest and quiet.

QUESTIONS AND PROBLEMS

1. List the things which you have seen five-year-old children do which you consider dangerous to the child himself or to others.
2. Which of those activities which you have listed might appear in a kindergarten? How do you think the teacher should act in each case?
3. Give all the reasons you can for the greater number of absences due to colds at the younger ages.
4. After the age of seven, the percentages of school absence due to infectious disease drop sharply. What factors may be causing this?
5. Consult old newspapers for the first Wednesday of every month for the past year and note the number of new cases of each contagious disease reported. What differences appear from month to month?

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Equipment for the Kindergarten

AN EARLIER chapter has stressed the point that children work and think with things more easily than with abstractions. It is, therefore, a distinct advantage if the kindergarten can be well equipped with materials which are suitable to the age and development of the children. Equipment is important, but not all-important. Any sensible child would prefer a superior teacher in a poorly equipped room to an inferior teacher in an elaborately equipped room. The ideal combination, of course, is the superior teacher in a well-equipped kindergarten.

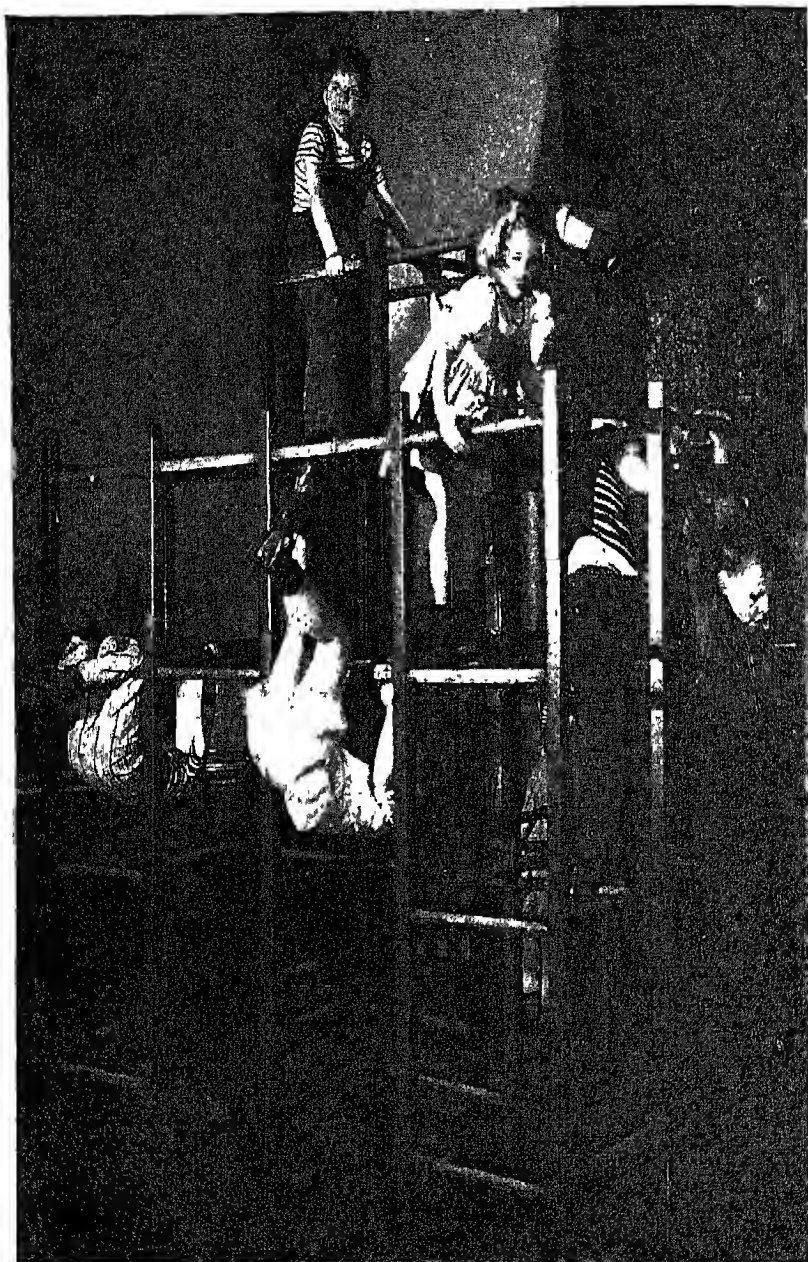
Furniture. Kindergarten children should not, of course, be expected to sit at fixed desks, but should be provided with movable chairs and tables of the proper size. Since there is a considerable range in the heights of kindergarten children, the seats of some chairs should be an inch or more higher than those of other chairs. For most groups of five-year-old children, the chairs provided should have seat heights of 12", 13", and 14"—obviously a majority of the chairs would be 13" in height. The chairs themselves should be of a type comfortable for the child and conducive to good posture. A full saddle seat and a double horizontal back support seem to be best adapted to postural needs. The chair base should be broad and sturdy in construction, and yet the total chair weight should not exceed eight or ten pounds. The chairs must be of such weight and design that they can be carried easily and safely about the room by the children. Tables which are square and wide enough to allow children to work opposite each other encourage conversation and appreciation of the work of others. The distance between the seat height and the table surface should be approximately 9½". Linoleum or plastic surfaces, such as those found

on many restaurant tables, seem more resistant to wear and scrubbing than do the stained, shellacked, or painted wooden surfaces. While the square tables may be more formal than the round or octagonal tables, they lend themselves better to a greater variety of grouping units. A special table and a few especially comfortable chairs will help the atmosphere of the library section of the room.

Provision for Big-Muscle Play. The kindergarten child needs considerable activity. Although such play is at its best when out of doors in the sunshine, in our Northern states during the winter months bitter cold, wind, and cloudy weather drive the child indoors for much of his play time. The average home, particularly the city home, cannot provide space for much active play indoors, and so it falls to the lot of the kindergarten to provide space and equipment for large-muscle activities. In some cases it is the only winter opportunity which the five-year-old has for gross activity unrestrained by apartment constrictions or bunglesome snow paraphernalia.

In many schools, the kindergarten children are taken to the school gymnasium for a period of games. Although the regular equipment of the gymnasium is probably beyond them, the big room does provide space to run, and to play circle games, and games with balls which may be inadvisable in the regular room.

Whether or not the kindergarten children have access to a special gymnasium with its apparatus, the kindergarten room itself should provide at least one piece of apparatus which encourages active play. Small children, as yet unaccustomed to the necessary confinement of the school, need a chance to exercise their big muscles at odd times during the session. A scramble over the jungle gym, a coast down the slide, or a vigorous swing or two will often relieve the strain of previous intensive work and prevent many difficulties from arising. For such indoor play the piece of equipment selected for a particular room would depend upon the amount of space available. A small jungle gym, for example, while an admirable piece of equipment for a large room, would take up too much space for crowded quarters. For the smaller rooms there are slides, "climbing" poles or ropes, "walking" boards, and horizontal bars and ladders. For other schools, "flying" rings, swings, trapezes, teeters, or "rocking" boards or boats might better meet the needs of the children. Wheeled toys, particularly



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The Jungle Gym—A Popular Piece of Apparatus

scooters, velocipedes, and large trucks and trains, are of great interest to many children, but there seems to be some evidence that these delightful vehicles tend to make solitary children more solitary and thus have a rather antisocial influence. Used as part of dramatic play or a project, of course, they are distinctly social.

There is little difficulty in providing for active play in the warm months. Many children spend most of their out-of-school day playing out of doors, but, even so, the kindergarten should make some effort to supplement or to encourage such play. An ideal arrangement is found in the kindergarten which has a private entrance opening directly into a playground planned specially for their use, and not open to older children. In practically all large schools, however, the kindergarten can only share the playground of the larger children in the school. Because of their small size and lack of experience, there is little opportunity for the kindergarten children to play when older children are playing. Outdoor kindergarten play time must, therefore, be arranged for a time when no upper class is having recess.

Whatever the equipment of the playground, the kindergarten children need the supervision of their teacher when playing out of doors at school. If the playground provides apparatus, then the teacher will be needed to help the children learn the use of the apparatus; if the playground is not equipped, then the teacher will be needed to encourage them in plays and games which will give the desired exercise.

Equipment for Kindergarten Housekeeping. A wastebasket is an essential part of any schoolroom setup, but the kindergarten needs still more in the line of cleaning supplies. A broom, preferably of the push-broom type, large enough for use but of a size to be handled by the children themselves, will help greatly in encouraging neatness and order. A regulation 16" floor brush with the handle cut to 40" will make a good implement for children's use. A dustpan, preferably long-handled, is necessary. Much clattering and banging can be eliminated if the edge of the pan is rubber-tipped. Some kind of cleaning or dust cloth will at times be worth its weight in gold. If possible, small scrubbing brushes should be supplied. These provisions have definite educational value and are of great interest to the children, who apparently feel that sweeping and scrubbing are much more satisfying forms of cleaning up than just picking up scraps of paper or clay.

Equipment for Rest. The rest period has come to be one of the periods most characteristic of the kindergarten. Since the chief feature of the period is that the children lie down, it is obviously necessary to provide something for them to lie on. Few kindergarten floors are clean enough to be desirable as couches. Some schools are so fortunate as to have small cots which can be easily set up at rest time. Most schools have to content themselves with something which can be laid upon the floor, and of variety of such resting-mats there seems to be no end. Probably the most satisfactory kind is the individual rag rug which can be folded up after the rest period and returned to the child's locker. Such rugs are laundered with little difficulty and wear very well. The chief trouble is in teaching the children so to fold their rugs that they know which side goes up, for if the rugs are used now on one side and now on the other, they are but little cleaner than the floor itself. A piece of adhesive tape on which the child's name has been written in India ink will not only serve to denote ownership, but it will also indicate which side of the rug is to be kept away from the floor, and at which end the head is to be placed while the child is resting.

Other kinds of resting-pads are: small linoleum rugs (usually piled in the corner of the room between rest periods), pieces of brown paper, sometimes bound with colored yarn by the children themselves, pieces of compoboard, and sheets of newspaper. The main trouble with using paper is that it is noisy when the children are restless, and the newspaper tears easily.

Materials for Manipulation. Many children who enter kindergarten have had a surprisingly meager outfit of play materials at home: a doll or two, perhaps, and some flimsy mechanical toys. These children are fascinated with the possibilities in manipulative toys and need a few weeks of this kind of experimentation before they are ready for any more constructive occupations. For them, we will need beads to string or pegs and peg-boards, nests of rings or boxes, small blocks of various shapes, and simple puzzles. Paper or tin plates for individual trays will facilitate the use of beads and pegs. A few manipulative toys of each kind will be more useful than a large supply of any one kind. Children who have attended a nursery school will have had enough

experience with this type of toy and will be ready for something more advanced.

Materials for Construction. Most of the work of the kindergarten year centers around construction of one type or another. The greater the variety of the construction materials available, the greater opportunity will the children have to gain experience and skill in handling materials, in discovering the possibilities and limitations of each kind, in making plans and testing their ideas and conclusions.

Blocks have long, and deservedly, held an important place in kindergarten equipment—small blocks for manipulation and simple constructions, larger blocks for more pretentious undertakings. There are good sets of blocks on the market at almost any price from \$5.00 to \$150.00. The chief requisite of any set is that the measurements of larger blocks should be exact multiples of those of the smaller blocks. Often perfectly satisfactory sets may be made by local carpenters or by industrial-education groups. Since it makes little difference what exact measurement is taken as a unit, this decision can often best be made by the carpenter himself, who knows to what measurements the available lumber will finish down most economically. If, for example, two-by-four lumber is to be used, it will probably be best to use units of $3\frac{1}{2}$ " by $1\frac{3}{4}$ ", cut into various lengths which should all be multiples of $3\frac{1}{2}$ ", as $3\frac{1}{2}$ inches, 7 inches, and 14 inches, with some sticks cut to measure $1\frac{3}{4}$ " by $1\frac{3}{4}$ " in the various lengths. It will probably be best to provide at least thirty or forty blocks of each size selected.

Larger constructions will need large, sturdy blocks which can be somehow held together to prevent the structure from toppling over on its builders. Some sets of blocks provide metal rods to be run through holes in the blocks, some nuts and bolts, and the like. Along with any set of large blocks, we need to provide material for roofing. Sheets of beaverboard or other composition material and a few boards four or five feet in length will add enormously to the adequacy of block structures.

Every kindergarten needs, along with the blocks, a place to store them. Cupboards and shelves will do, but chests and platforms on casters are more popular because they can be shifted around the room as needed.

Many kinds of paper are needed in the kindergarten. Manila paper for drawing is often most economically purchased in the larger sizes and can be cut down to smaller sheets. Construction paper in various colors is used a great deal. It is ordinarily more economically supplied in packages of one color each than in the packages of assorted colors. If the teacher will plan ahead through the year, she will find that certain colors are almost sure to be wanted, such as red and green at Christmas time, orange and black at Halloween, and the pastels in the spring time. Brown paper fills many a need in kindergarten. Sometimes enough used brown paper can be collected at home by the children, but if the school can buy one of the regular rolls of brown wrapping paper, there will be no necessity for depending on outside sources. Tissue and crêpe paper will be wanted in small quantities for special occasions. Unprinted news is most satisfactory and most inexpensive for painting and drawing. Pasteboard is sometimes in demand, either for help in construction or for mounting pictures. A supply of tagboard, also, is useful.

For use with the paper we need: scissors, a few blunt, but mostly pointed; paste, preferably semiliquid and of unpalatable taste; pencils, rather larger than ordinary and with fairly soft leads; crayons, large size, preferably hexagonal in shape; paints; an easel; aprons; water colors for painting on paper, house paint for painting woodwork which the children have made; shellac; large- and medium-sized brushes; alcohol and turpentine. The blackboard and chalk will be used occasionally.

Soft wood, preferably white pine, in various shapes and sizes, will simplify the problems of the amateur carpenters in the kindergarten. The tools to be supplied will vary with the skill of particular groups of children, but certainly hammers, cross-cut saws, pliers, and nails will be essential. Coping saws, bits and brace, screws and screwdrivers, belong in the not-quite-so-essential listing. A plane may be needed, though if the semifinished wood is available, necessary smoothing can be done with a wood file or sandpaper.

If the kindergarten children have had little experience with sand, they may want some weeks to play at the sand table with rolling pins, scoops, cookie cutters, and pattypans. Kindergarten children, however, early exhaust the manipulative possibilities of sand and become interested in problems of measurement by half pints, pints, and quarts,

and in using the sand for construction. Such activities are stimulated by the provision of measuring cups, small boats, trains, trucks, toy trees, houses, and the like. A watering can is helpful in keeping the sand at the proper moisture, and can be used in the kindergarten garden, too. There should be some special place to store the sand toys. Put into a cupboard with other materials, they soon shed so much loose sand that they are a nuisance. Kept in bins or in a box or basket on a shelf beneath the sand table, they are at hand without being messy. The sand table is not complete without a handy brush and dustpan to clear up the accidental spillings that are bound to occur. If a cover is provided for the sand table, then the table can serve a dual purpose.

Clay and plasticine are excellent materials for modeling. Pieces of oilcloth or plywood heavily shellacked will protect the tables. Aprons can be brought from home or provided by the school to protect the clothing of the children. Plasticine has the advantage of remaining in a plastic state; clay, that of hardening into an article which can be preserved. Both are desirable. Clay needs to be kept in an earthen jar and to be kept moist. Plasticine is best kept in a metal or earthen container and since it becomes hard to manipulate when cold it is wise to keep the container near or on a radiator. For work with clay or plasticine no tools are necessary. Children sometimes request knives, sticks, or nails, but almost invariably the use of tools detracts from, rather than supplements, the child's own creativeness.

Because of the fine muscle co-ordinations involved in sewing, the use of needle and thread is not to be encouraged at the kindergarten level. However, for stringing popcorn or sewing an occasional seam it would be well to have needles, thread, and cloth on hand. Cloth, of course, can be used in many ways in which sewing plays no part whatsoever. Available needles (to be threaded by the teacher) should have long eyes and good points. A Crewel #5 needle meets the requirements reasonably well. The thread to be used should be of a twisted variety such as silkaleen or yarn, so that the point of the needle, after the thread has been put through the eye, can be run back through the short end of the thread thus preventing the needle from falling off. Most five-year-olds will find it difficult to cut cloth. Glazed chintz and paper cambric are among the materials least difficult to cut.

The alert teacher will not only see values in the use of waste ma-

terials, but she will also provide adequate space in her room where she can store such materials against the time when they may be used. A listing of waste materials will be found on page 186.

Materials for Dramatic Play and Special Days. Kindergarten dramatization is at its best when informal and spontaneous. The teacher may, however, set the stage by providing certain simple materials. She may have to limit dramatizations which are undesirable for the children themselves (such as the dramatization of hold-ups and lynchings) or for the school as a whole (such as the extremely noisy characterizations which sometimes develop). Generally speaking, simple materials which may be used to construct "properties" and which demand considerable imagination in their use are more satisfactory than highly specialized materials. A strip of cloth may thus become now a skirt, now a cape, now a flag, tablecloth, window curtain, or bedspread; whereas after it is once fashioned into a skirt, it is rendered unsatisfactory for its other uses.

Some permanent equipment for house play is desirable. A few dolls, not too fragile to stand the use of successive kindergarten groups, with clothes which may be put on and taken off, are almost indispensable. Screens, to shut off the house play or to give the effect of separateness, encourage such play. Less permanent partitions may be made from the ever-useful orange and apple crates or from large blocks or Builder-Boards. Ready-made doll furniture is a help, though before the year is over, the children may be devising their own doll-beds and chairs and tables. Equipment for washing and ironing the doll clothes and for sweeping and dusting the doll corner stimulates much dramatization of home duties. Clay, paper of various kinds, and cloth and yarn will provide for much activity centered around the home. Toy animals and toys of transportation, doll buggies, trucks, wagons, and the like, either in permanent form or in the shape of construction units within the ability of the children, will add greatly to such play.

Many materials for special dramatizations may be brought from home by the children or borrowed from friends of the school. Practically no school can hope to have a supply of all the materials which each kindergarten class could use, but every teacher can locate some

materials for special occasions and can help the children to make their own materials at other times.

Many schools provide a flag for each room. These big flags are admired by the children but are not so thoroughly enjoyed as are smaller flags which can be carried during a lively march.

Science Materials. Much of our science material is all about us and is ours for the spotlighting of it. It would be well for each kindergarten to have a special "science table." Among the many things which might appear on the table are the following: shells, stones, seeds, leaves, tree bark, caterpillars, cocoons, insects, birds' and hornets' nests, magnifying glasses, magnets, scales, pulleys, electric bells, batteries, etc., etc. There is really no end to the number of things which might appear on that table!

Usually we cannot plan ahead in great detail as to what live animals we can have in a kindergarten during a year, but we can plan for the accommodation of the animals which do appear. A small cage for such pets as white mice or squirrels, an aquarium for goldfish or turtles or guppies, and if possible a large cage for rabbits or kittens, will encourage the bringing of pets for short visits. A deep metal tray, like a sand-table tray, may be sufficient for some small animals. If the room is not provided with some such accommodation, the arrival of a pet may be most embarrassing.

A few good garden tools and a small space of ground open to the sun are absolutely essential if a producing garden is to be anticipated.

A Museum. Some schools are so fortunate as to have a place for the exhibition of precious or delicate objects. A cupboard perhaps two feet wide by three feet high, lighted by electric lights inside, and with a glass door locked against too-curious hands, may be used to exhibit stuffed birds, foreign costumes, delicate toys, or really valuable examples of the kind of work upon which the group is engaged. The material in the museum needs to be changed with changes in interest in the group. A small museum which is always the same is soon ignored.

Music. Most kindergartens have the use of a piano. If the piano is in the kindergarten room, then it can be used at any time during the

session; if it is in the school gymnasium, then the kindergarten program must be planned so that the music period comes at a time when the gymnasium is free. In place of the piano it is quite possible to use a portable phonograph for rhythms and for appreciation of music. If the teacher relies on the phonograph for rhythms, she will need a pitch-pipe to help her in the singing, unless she has a violin or mandolin or xylophone. In Chapters XIII and XIV suggestions are made as to useful phonograph records and music books. A radio, while not an absolute must for the kindergarten, is a desirable bit of property. The children can get excellent listening experience if they are assembled in a group to enjoy a good story or dramatization. These broadcasts will not only offer opportunities for the teacher and the child to enjoy a total experience, but they will also prepare the children for later school-of-the-air learning experiences.

Books. Books are selected for the kindergarten for their story or for their illustrations or both. Every year the number of available good books increases steadily. Some books are planned for children's own experimental use, some for the use of the teacher, and some for the use of the children and teacher together.

Use of books is stimulated if a corner of the kindergarten room can be designated as the "library" and distinguished from the rest of the room by special table, shelves, and chairs, preferably of the informal type—wicker or rocking chairs or especially decorated wooden chairs.

In Chapter XII there will be found a list of some of the more desirable kindergarten books.

Pictures. Pictures for the kindergarten fall into three general classes: framed pictures, murals, wall hangings, and plaques, current mounted pictures to be put on bulletin boards or to be studied at tables; and pictures made by the children themselves.

Pictures of the first group should add to the general attractiveness of the room, supply a note of color and present subject or form which is of interest to young children. It is more pleasing to the eye if there are only a few of these pictures on the wall at any one time. A picture that always hangs in one place is soon ignored. If, therefore, we want the children to observe and enjoy the pictures, we will change them every few weeks. If the school affords only one framed picture for the

kindergarten, it is better to take it down sometimes and then return it to the wall some weeks later, or perhaps hang it in a different place. Sometimes one frame may be used for different pictures at different times. Pictures for the kindergarten should be hung rather low on the walls so that they may be within the range of vision of the child.

Smaller mounted pictures are almost indispensable. The kindergarten teacher will be quick to see in magazine covers, calendars, advertisements, and the like many pictures which may be of great interest and value to the children. If when such pictures are cut out, the teacher files them away according to some simple system, then she will be able to locate quickly pictures relating to Thanksgiving, those relating to farms, to circuses, to home life, and so on. These pictures may be tacked up on the bulletin board or placed in the bookcase or on the library table. We may suggest here that when a book reaches the stage of dilapidation at which repairs are no longer possible, some of the illustrations may be salvaged by cutting them out and mounting them on cardboard. If this is done, care must be taken not to suggest that cutting pictures out of books is allowable, but rather to suggest to the child that here is a familiar picture without suggesting that it came out of a book.

Films. The most satisfactory projected pictures for group use with five-year-olds are those found on 35mm still-film strips and on 2" x 2" slides. It would be quite ideal if each kindergarten could have its own projector and room screen. A modern stereoscope offers opportunities for the individual viewing of three-dimensional portrayals.

Cost of Equipment, Materials, and Supplies. The following section presents approximate prices (as of 1948) of equipment, materials, and supplies which one might hope to find in a well-equipped kindergarten. Prices, of course, vary greatly from one part of the country to another and from one year to another. The prices quoted here are to be considered merely as indications of the expense involved in supplying certain types of equipment. Exact budgets can be worked out only after a careful study of local needs and local markets.

KINDERGARTEN ROOM AND ROOM FURNISHINGS

Blackboard (18 sq. ft.) \$42 per sq. ft.

Bookcases (9 to 12 cu. ft.) \$1.00 per cu. ft.

- Bulletin boards (20 to 30 sq. ft.—cork) \$.30 per sq. ft.
 Chairs (adult size, at least two) \$5.00 to \$6.00 each.
 Chairs (wicker or modern, four for library unit) \$4.00 to \$6.00 each.
 Chairs (wooden or metal tubing—12", 13", and 14" high) \$3.00 to \$5.00 each.
 Clock (electric—wall) \$8.50 to \$15.00.
 Cupboards (storage space—approximately 200 cu. ft.) \$.50 per cu. ft.
 Desk (adult size) \$35.00 to \$45.00.
 Draperies or blinds—\$2.00 to \$10.00 per window.
 Drinking fountain (slant stream) \$35.00 to \$50.00.
 Fire extinguisher (two-qt. size) \$9.50.
 Linoleum for floor covering—\$2.25 per sq. yd.
 Lockers (individual, for personal property) \$3.00 to \$5.00 per unit.
 Mirror (approximately 15" x 45") \$6.00 to \$8.00.
 Paper-towel container (white metal) \$1.50.
 Pictures and wall hangings—\$2.00 to \$15.00 each.
 Sand table (with cover 3 ft. x 4 ft.—metal box 7" deep, overall height 27") \$25.00.
 Soap dispenser (liquid soap) \$1.75.
 Storage space for beds, top to be used as a display table (60" x 60" and 33" high) \$50.00.
 Storage space for wood (2 ft. x 2 ft. x 4 ft.) \$10.00.
 Tables (30" x 30", linoleum or plastic top, 21½" to 23½" high) \$10.00 to \$15.00 each.
 Table (40" in diameter, round or hexagonal, for library, 23" high) \$18.00 to \$20.00.
 Toilet facilities (two seats, two lavatories) \$300.00 to \$500.00 total cost.
 Workbench (24" x 42" top and 24" high) \$25.00.

EQUIPMENT AND SUPPLIES FOR HOUSEKEEPING

- Broom (light weight, adult size) \$2.00
 Brush (counter style) \$1.50.
 Brush (long-handled floor brush) \$2.50.
 Brushes (5" scrub brushes) \$.20 each.
 Cleanser—\$.10 per can.
 Dust cloths—\$.20 each.
 Dustpan (rubber or rubber tipped) \$1.50 to \$2.00.
 Mop (small, light weight) \$1.50.
 Vases or bowls—\$.25 to \$1.00 each.
 Wastebaskets (solid walls) \$.75 to \$1.50.
 Wax—\$.50 per lb.
 Whisk broom (small size) \$.50.

EQUIPMENT FOR REST

Cots (30" x 54" and approximately 12" high) \$4.00 to \$7.00.
 Cotton blankets (single) \$1.50 to \$2.00.
 Rugs (washable 27" x 48") \$1.50.

EQUIPMENT AND SUPPLIES FOR FIRST AID AND HEALTH

First-aid cabinet (stocked in accordance with individual school regulations) \$3.75.
 Paper handkerchiefs (hospital size) \$.06 per box.
 Paper towels (junior size, 150 towels in pkg.) \$.15 per pkg.
 Soap (liquid) \$1.00 per gallon.
 Toilet paper (rolls) \$15 per roll.

EQUIPMENT FOR LARGE-MUSCLE ACTIVITIES

Ball (rubber 4", 6", 8", 10") \$.50 to \$2.00.
 Climbing rope—\$3.50.
 Climbing tower (jungle gym or other) \$65.00 to \$125.00, locally made \$35.00 to \$50.00.
 Hollow blocks (units 12" x 12" x 6" and 12" x 24" x 6"—seasoned wood for either outside or inside use) \$1.00 to \$2.00 unit.
 Ladder (rope, 4 rungs) \$6.50.
 Ladder (wood 6 ft.) \$6.00.
 Planks (1 1/4" x 6" x 3', 1 1/4" x 12" x 6') \$.15 to \$.20 per bd. ft.
 Scooter (6" wheel, rubber tires, 39" length, 33" height of handle) \$5.00.
 Slide (wooden trough—8 ft. stand) \$25.00 to \$40.00.
 Skipping ropes (solid wooden handles) \$.50 each.
 Swing (rope-beveled wooden seat—preferably hung from tree, 10 ft. suspension) \$6.00 to \$8.00 (Two-swing outfit, metal standard, 10 ft. high) \$35.00.
 Tecter (9 ft. plank, 18" stand), \$8.00 to \$10.00.
 Trucks (large enough and strong enough to sit on) \$.50.
 Velocipede (20" pedal wheel, 10" rear wheels) \$15.00.
 Velocipede trailer (two wheels) \$5.00.
 Wagon (wooden box, rubber tires, 16" x 34" x 3 1/2" deep) \$9.50.
 Wheelbarrow (wooden box, rubber-tired wheel) \$5.00.

MATERIALS FOR MANIPULATION

Beads (wooden, 1/2" cubes, etc.) \$3.00 per thousand.
 Bead laces—\$.48 per dozen.
 Domino and other game blocks—\$1.00 to \$2.50 per set.
 Lotto games (bird, flower, star, etc.) \$1.00.
 Nest of rings or boxes—\$1.00 to \$1.50 per set.
 Peg boards (12" x 12") \$.50 each.

Pegs—\$.35 per thousand.

Puzzles (9 to 16 pieces, wooden) \$.60 to \$1.50.

EQUIPMENT AND MATERIALS FOR CONSTRUCTION AND ART WORK

Alcohol (denatured) \$.40 per qt.

Ballbearing clips ($2\frac{1}{2}$ " x $2\frac{3}{8}$ ") \$.11 each.

Beaverboard (3' x 4') \$.08 per sq. ft.

Blocks (unit floor block) \$.50 to \$60.00 per set.

Blocks (interlocking, set large enough to make buildings to get into)
\$60.00 to \$150.00.

Chalk (white and colored) \$.50 to \$1.10 per box.

Clay (seminmoist) \$3.75 per 100 lbs.

Clay (powder) \$.06 per lb.

Clay container (pottery crocks #3 with cover) \$1.50.

Cloth (material like paper cambric) \$25 to \$.40 per yard.

Conductor's punch—\$.75.

Cotter pins (assorted sizes) \$.15 per box.

Cotton batting—\$.25 per roll.

Crayons (hexagonal, 4" long, $\frac{7}{16}$ " in diameter) \$3.00 per gross.

Easel (double) \$12.00 to \$15.00.

Erasers (felt for blackboards) \$.30 each.

Glue (small bottle) \$15.

Masking tape (60 yds., $\frac{1}{4}$ " wide) \$45 per roll.

Mending tape (transparent) \$10 per roll.

Mending tape (linen) \$30 per roll.

Modeling boards (3-ply, 12" x 18") \$.30 each.

Mounting board (22" x 28") \$1.44 per dozen sheets.

Needles (large, long-eye, Crewel #5) \$.15 per pkg.

Paint (enamel) \$.10 and up per $\frac{1}{2}$ pt.

Paint (finger paint) \$1.50 per qt.

Paint (flat house paint) \$.60 and up per pt.

Paint (starch for making finger paint) \$.12 per box.

Paint (water color, thick liquid) \$.20 per qt.

Paint (water color, powder) \$.60 per pt.

Paintbrushes (flat $\frac{3}{4}$ to $1\frac{1}{2}$ " spread) \$.10 to \$.60 each.

Paintbrushes (round, easel, $1\frac{1}{4}$ " hairs) \$.25 to \$.35 each.

Paint jars (with covers) \$.50 per dozen.

Paper (brown wrapping, 45 lb. roll 30" wide) \$4.50.

Paper (construction, 9" x 12") \$.17 per pkg. of 50

Paper (construction, 12" x 18") \$.32 per pkg. of 50

Paper (crêpe, 20" x 10') \$.15 per roll

Paper (Manila for drawing, 12" x 18") \$1.25 per ream.

Paper (tissue) 20" x 30", \$.25 per quire.

- Paper (unprinted news, or expression paper, 18" x 24") \$2.00 per ream.
- Paper fasteners—\$.15 per box.
- Paper bags (approximately 8" x 14") \$1.50 per thousand.
- Paper cutter (12" blade) \$6.50.
- Paper holder (frame for 30" kraftroll) \$2.25.
- Paste (semiliquid) \$1.50 per gal.
- Paste jars ($\frac{1}{2}$ oz.) \$.60 per dozen.
- Pencils ($\frac{1}{2}$ doz. soft, thick lead, without erasers; $\frac{1}{2}$ doz. medium soft, with erasers) \$.60
- Pins (safety, medium size) \$.10 per card.
- Pins (straight, common) \$10 per roll.
- Roving (heavy rug filler) \$.34 per $\frac{1}{2}$ -lb. hank.
- Rubber binders (assorted sizes) \$.15 per pkg.
- Rulers (1" and $\frac{1}{2}$ " markings only) \$.10 each.
- Sand (white for indoor box, brown for outside box) \$.02 per lb.
- Sandpaper (assorted size 000 to 3) \$.50 per quire.
- Sand toys (spoons, measures, molds, etc.) \$10 to \$.25 each.
- Scissors (semipointed, forged steel . . . some blunt points 5") \$.36 to \$.45 each
- Scotch tape (3 yd. roll, $\frac{3}{4}$ " wide) \$.75.
- Scotch-tape dispenser (medium size) \$.75 to \$1.50.
- Shears (adult size) \$.60.
- Shellac (white-clear) \$.90 per qt.
- Silkaleen (assorted colors) \$.10 per ball.
- Sponge (small size) \$.75.
- Stapler and staples—\$2.60.
- String (carpet warp) \$.35 per $\frac{1}{2}$ -lb. spool.
- Tagboard (medium weight 24" x 36") \$.04 per sheet.
- Thread (black and white #60) \$.07 per spool.
- Thumbtacks (solid head— $\frac{3}{16}$ " length) \$.10 per box of 1000.

TOOLS FOR WOODWORK

- Bits ($\frac{1}{4}$ "— $\frac{1}{2}$ "— $\frac{3}{4}$ "—1") \$.50 each.
- Brace (regulation size) \$2.25.
- Clamps (metal, 5" opening) \$1.00.
- Coping saw (wooden handle) \$.50.
- Coping-saw blades (assorted sizes) \$.20 per doz.
- Hammer (13 oz. and 16 oz.—flat head, claw) \$1.50.
- Hand drill and drill sets \$2.50.
- Nails (3d—6d—7d) \$.07 per lb.
- Pliers and wirecutter—\$1.50.
- Saw (crosscut 20"—8 teeth to the inch) \$1.75.
- Screwdrivers (two sizes, 8" and 12") \$.35 and \$.50 each.
- Screws (assorted sizes, flat-head steel) \$.35.

Square (8" blade) \$.75.

Vise (9" opening) \$5.00.

Wood file (10" medium coarse) \$.75.

Turpentine (plain) \$.45 per qt.

Wood (mill ends—any soft wood) \$.00 to \$2.00 per 12 cu. ft. load.

Wood (pine—rough measure—3-ft. lengths) \$.10 to \$.15 per bd. ft.

Yarn (red, green, and yellow) \$.30 per ½-oz. ball.

EQUIPMENT AND MATERIALS FOR DRAMATIC

PLAY AND SPECIAL DAYS

Animals and other toy figures—\$.10 and up.

Christmas tree—\$.75 and up.

Christmas-tree lights—\$1.00 per set.

Dolls (washable—approximately 20") \$4.00 to \$15.00.

Doll carriage (24" to 27" handle height) \$9.50.

Flags (3' x 5') \$1.65; (12" x 18") \$.90 per doz.

Holiday seals—\$.10 per pkg.

Old clothes kit—\$.00.

Paper napkins (white) \$.25 per pkg. of 125.

Playhouse dishes (metal) \$1.50 to \$5.00 per set.

Playhouse furniture:

Table and chairs	\$10.00
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Bed	5.00
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Cupboard	5.00
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Playhouse laundry set (tub and scrub board) \$3.00.

Pumpkins (for jack-o'-lanterns) \$.15 and up.

Screens (folding or separate sections—36" x 48") \$3.00 per section.

Straws—\$.35 per carton of 500.

Toy telephone (metal, with dial) \$1.50.

EQUIPMENT AND MATERIALS FOR SCIENCE

Animal cage (36" x 36" x 36") \$10.00 to \$15.00.

Animal cage (all metal, 12" x 14" x 18" with wheel) \$3.00.

Aquarium (10" x 12" x 18") \$8.00.

Batteries and wire—\$.75.

Bird cage (hanging) \$2.50 to \$5.00 and up.

Cocoons (butterfly, moth) \$.00 to \$.25 each.

Food (for fish, turtle) \$.10 per box

Food (for other pets) \$1.00 to \$5.00.

Garden tools (junior size but sturdy) \$2.00 per set.

Globe (9" or larger) \$3.00.

Kaleidoscope kit \$2.00.

Level (6" wooden) \$.50.

Magnet (horseshoe and block) \$.25 to \$.50.
 Magnifying glass (3" to 4" in diameter) \$.75.
 Measuring units (cup, pint, quart, etc.) \$.10 to \$.25.
 Thermometer (outside and inside—large figures—red indicator) \$.75 to \$1.15.
 Terrarium (10" x 12" x 18") \$5.00.
 Scales (table model) \$3.00.
 Syringe (large bulb—for watering plants) \$.35.
 Watering cans (long spout) \$.75.

Pets:

Canary—\$5.00.
 Goldfish—\$.10 to \$.35.
 Hen (for setting) \$1.00 and up.
 Hamster }
 Rabbit } To be borrowed from laboratories.
 Snails—\$.10 to \$.25.
 Turtles (small, Japanese) \$.10 to \$.25.
 White mice }
 White rats } To be borrowed from laboratories.

EQUIPMENT FOR MUSIC

Books (musical games, rhythms, and songs) \$.10 to \$2.50 each.
 Instruments:
 Bells—\$.20 each.
 Chinese tom-tom—\$4.00 each.
 Cymbals—\$1.50 per pair.
 Drum (snare) \$8.50 each.
 Piano (midget size) \$300.00.
 Rhythm sticks—\$.25 per pair.
 Tambourine—\$1.25 each.
 Triangle—\$.75 each.
 Radio-phonograph combination—\$50.00.
 Records (music appreciation, musical games, rhythms, and songs) \$.75—\$3.00 each.
 Phonograph needles (long-life needle—1000 plays per needle) \$.50.

EQUIPMENT FOR VISUAL EDUCATION

Books (story and picture) \$1.00 to \$3.00 each.
 Books (reference materials for children and teachers) \$.10 to \$.50 each.
 Film strips¹ \$1.50 to \$3.00.
 Pictures (carefully mounted current pictures) \$.00 to \$.25 each.

¹ Film strips and slides may be rented from audio-visual companies or from your state visual-education department.

Pictures (framed without glass) \$2.00 to \$15.00 and up.

Plaques (tile and wood) \$.50 to \$5.00.

Projector for film strips and slides—\$80.00 to \$95.00.

Screen for classroom (36" x 48") \$10.00.

Slides (2" x 2") \$.55 to \$1.35 each.

Stereoscope—\$1.50 to \$2.00.

Stereoscope reels (full color—7 views) 3 for \$1.00.

Wall hangings (washable prints or embroideries) \$2.50 to \$6.00.

Emergency Materials (greens for fish bowl, food for special pets, etc., or articles which might profitably be picked up by the teacher in her travels) \$5.00 and up

A MASTER SHEET

A roughly blocked-out master sheet providing for setting up and equipping an ideal kindergarten for thirty children might look something like this.

I. Kindergarten Room and Room Furnishings	.. .. \$1450.00
II. Equipment and Supplies for Housekeeping	20.00
III. Equipment for Rest.	270.00
IV. Equipment and Supplies for First Aid and Health	30.00
V. Equipment for Large-Muscle Activities	180.00
VI. Materials for Manipulation.	30.00
VII. Equipment and Materials for Construction and Art Work	225.00
VIII. Equipment and Materials for Dramatic Play and Special Days.	65.00
IX. Equipment and Materials for Science.	40.00
X. Equipment for Music.	385.00
XI. Equipment for Visual Education	150.00
XII. Emergency Materials.	5.00
Total	<u>\$2850.00</u>

Quantity of Equipment Needed. The teacher often has little or nothing to say about the kind or amount of permanent equipment supplied to her. She may be so fortunate as to be consulted about the original equipment for a new kindergarten room, but usually the young teacher can do no more than report deficiencies in equipment to the principal. Sometimes, however, a wealthy parent or a thoughtful Parent-Teacher Association will offer a gift to the kindergarten room. In such a case the teacher should know what materials are most

needed. It is not necessary or even desirable to have enough of each kind of material to supply every member of the group. It is, on the other hand, extremely desirable to have a wide variety of material, even if the number of pieces of each kind is decidedly limited.

Of expendable material, the material which is used up during the year, the teacher is usually able to determine kind and to some extent amount. If she is limited (as some teachers are at the present time) to an expenditure of \$.75 per child per year, then she will need to select her materials very carefully. If she has a budget of \$1.50 or more per child per year, then she can give the children a fairly wide range of constructive experiences. The following section presents a suggested list of expendable supplies which will cost between \$50 and \$60 a year. Another \$3 or \$5 should be allowed for materials which may be needed in a hurry but whose need cannot be foretold.

A YEAR'S ALLOWANCE OF EXPENDABLE SUPPLIES
FOR A KINDERGARTEN OF THIRTY CHILDREN

Books

- 2 Music Books—Songs or Rhythms
- 8 Picture Storybooks

Clay

- 120 lbs. of bulk clay

Cloth

- 5 yds. of cloth—assorted colors and designs

Cotton

- 1 bat of cotton

Crayons

- 18 doz. crayons

Emergency Supplies to be selected by the teacher.

First Aid and Health Supplies

- 30 boxes of paper handkerchiefs—hospital size
- 1 refill for First Aid Cabinet
- 3 cases of paper towels (junior size—25 packages to case)
- 2 gal. liquid soap
- 3 doz. rolls of toilet paper

Housekeeping Supplies

- 4 cans of cleansing powder
- 1 doz. dust and cleaning cloths

Miscellaneous

- 1 roll masking tape

- 1 box each of fish and turtle food
- 1 pkg. of greens for aquarium
- 1 box of paper clips
- 1 box of refills for stapling machine
- 1 box rubber binders
- 1 roll of straight pins
- 1 box of safety pins
- 3 or 4 colorful plants
- 1 roll Scotch tape
- 3 boxes thumbtacks

Paint

- 2½ pts. enamel—½ pt each red, yellow, blue, black, and white
- 3 pts. flat household paint—1 pt each green, red, yellow
- 9 qt. poster paint, 2 qt. each red, yellow, and blue; 1 qt. each brown, black, and white
- 1 qt. of alcohol
- 1 qt. of white shellac
- 2 qt. of turpentine

Paintbrushes

- 6 easel brushes—1 round 1¼" hair length
- 2 varnish brushes—flat 1½" spread

Paper

- 20 pkg. colored construction paper 9" x 12"—1 brown, 2 each yellow and white, 3 each red, orange, blue, green, black
- 4 pkg. colored construction paper 12" x 18"—assorted colors
- 4 reams of buff, Manila drawing paper 12" x 18"
- 10 pkg. expression or unprinted news paper 18" x 24"
- 10 pieces of tagboard 24" x 36"
- 4 pieces of colored mounting board 22" x 28"
- 24 sheets of assorted colored tissue paper—pastels and red, green, and white
- 1 roll of wrapping paper—30" width

Party and Holiday Supplies

- 2 pkg. paper napkins—white
- 6 bulbs for Christmas-tree lights
- 3 doz. paper plates
- 3 doz. paper or wooden spoons
- 1 carton straws—500

Paste

- 1 gal. semi-liquid paste
- 2 one-oz. bottles of glue

Pencils

- 1 doz. pencils—thick, soft lead

Phonograph Needles

- 2 needles designed for 1000 playings each

Phonograph Records

- 1 record for quiet listening
- 1 record for rhythmic activity
- 1 record for song or story content

Plasticine

- 3 lbs. plasticine

Sand

- 200 to 300 lbs. for indoor box
- 800 to 1000 lbs. for outdoor box

String and Yarn

- 3 balls of yarn—1 each of red, yellow, green
- 1 spool of carpet warp
- 3 hanks of roving—1 each of red, yellow, green
- 6 balls of silkaleen

Wood

- Approximately 12 cubic feet of mill ends (soft wood—be sure!)
- 30 pieces of soft wood in 3-ft. lengths— $\frac{3}{4}$ " thick and in widths from 2" to 8"
- 8 discs $\frac{3}{4}$ " thick and 5" to 6" in diameter.

A Requisition. A section taken from a requisition submitted to the school principal might look like this:

REQUISITION

Expendable Supplies
Kindergarten
Date

Articles selected from the Brown
Book and Stationery Catalogue

Quantity Ordered	No. of Item in Catalogue	Article and Description	Cat. Page	Unit Price	Total Price
4 reams	No. 1408	Drawing Paper Buff Manila—12" x 18"	90	\$1.14	\$4.56
3 reams	.....	Expression Paper—18" x 24" 100 sheets per pkg.	92	\$2.00	\$6.00
1 ½ gross	No 934	Crayons—Kindograph $\frac{7}{16}$ " x 4" 4 doz. red 3 doz. each green, blue, black 15 sticks each orange, yellow, brown, purple	54	\$3.00	\$4.50
1 roll	No 411	Pins—straight	120	\$.12	\$.12
3 lbs	. . . .	Plasticine Harbutt's—green	61	\$.42	\$1.26

Equipment for the Kindergarten

A **Supply-Company Order**. An order to be sent directly to the supply company might be set up in the following fashion:

Name of Company _____	Date _____ 19____
Street _____	Shipped by _____
City, Zone, and State _____	Freight, Express, Mail
_____	Enclosed find _____
Shipped to _____	Check, Money Order, Draft, or
Street or R.F.D. _____	Charge to _____
City, Zone, and State _____	Individual, Firm, or School
_____	District No. _____
Shipping Point _____	
(for freight or express delivery)	

Quantity Ordered	No. of Item in Catalogue	Article and Description	Cat. Page	Unit Price	Total Price	Shipping Cost
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	Total	xxxxx	xxx
Shipping Charge		xxx	
Complete Total		xxxxxx	

This order sent by _____

Street _____

City, Zone, State _____

Official position, if any _____

A letter written on a separate sheet should always accompany the order blank

QUESTIONS AND PROBLEMS

Observe in a kindergarten; then answer the following questions.

1. Is adequate storage space provided? Are materials available to the children?
2. Does the room as set up afford opportunities for a variety of activities?
3. Are the chairs and tables of proper height for five-year-old children?
4. What provision is made for large-muscle activity? for manipulative activity? for creative use of materials?
5. Is the room a harmonious whole?
6. From the point of view of functional efficiency, how would you rate this room?

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Creative Self-Expression

IN AN earlier chapter, it has been suggested that the kindergarten offers opportunities for two kinds of emotional development: the gradual controlling of certain undesirable responses and the furthering of certain desirable ones. While it is of course necessary to work definitely for the curbing of certain tendencies, the fact remains that by giving the child sufficient practice in expressing himself acceptably, we at the same time reduce his desire to express himself in an unacceptable manner. One of the primary rules for breaking up any bad habit is to replace the bad habit by a good habit.

Perhaps if we were not concerned with the happiness of the individual or with the improvement of our civilization, we could be content with mere destruction of undesirable traits. Under such conditions, we could spend our days cramming children full of rules by which they could avoid disaster and continue to exist. If, on the other hand, we want our graduates to be alert, thinking, progressing adults, we shall need to give them an opportunity to experiment, a freedom to resist precedent, an understanding of what is done by others, and an imagination to see new possibilities and new relationships in materials.

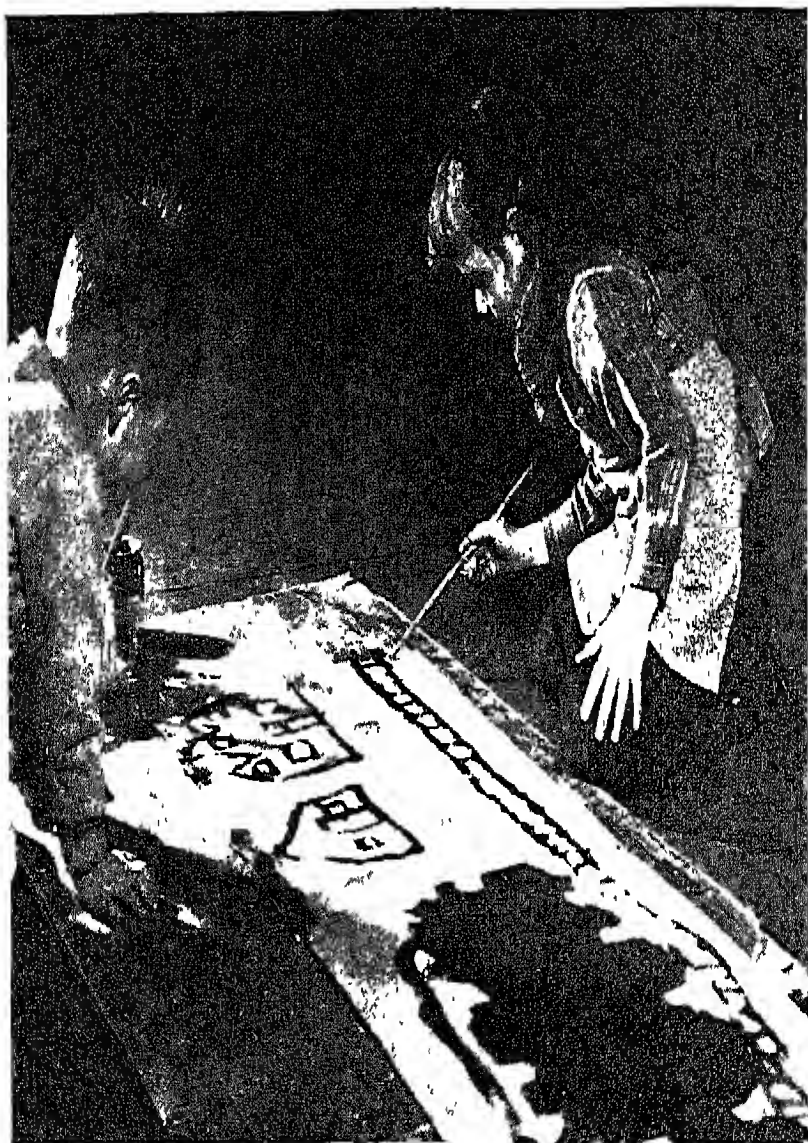
Affecting the Environment. One of the fundamental urges of the human individual is to impress himself upon his environment, to do something to the things or the people around him. This doing may be destructive or may be constructive. The child who smashes a vase into a thousand pieces upon the floor may get as much satisfaction from his activity as the glass blower who made the vase gained from his accomplishment. The baby takes enormous delight in knocking down the pile of blocks which some adult has built so carefully for him, and his joy is obviously greater in his own destruction than in either the working of the adult or in the finished construction. It is the doing

which we do and not the doing which someone else does, no matter how well, which satisfies us most.

Learning Through Experimentation. Trying out our strength or our skill upon materials brings us not only joy in the activity but also a much clearer understanding of the properties of the materials themselves. Adults gain much information through words; children profit more from experience than from mere telling. Adults do much of their thinking with words, children do much of theirs through movements and trying things out. Experimentation with materials, then, is a way of thinking and may make a distinct contribution to the individual's mental development. Although using materials in accordance with the definite suggestions of others may improve a child's skill, it will add little to his ability to meet other new situations.

Throughout the day, the kindergarten teacher is ready to further the self-expression and creative work of her children. When activities of this kind interfere in no way with the rights and happiness of others and particularly when they show a definite advance in the thinking or in the performance of the child in question, then the teacher does all she can to give the child the opportunity to carry out his own ideas and desires. One kindergarten group, for example, had made a horse from wood and wanted a horseman to ride upon his back. In letting the children work out their own ideas as to materials, the teacher was rather surprised when they selected wood, and still more surprised when they constructed a most satisfactory doll from wood, with a round head, rectangular body, arms and legs jointed by means of staples and hooks, features outlined in thumbtacks and hair made from yarn. Such a construction gave wide scope to experimentation and co-operative planning. If the teacher had insisted upon a stuffed cloth doll, much splendid opportunity for invention and ingenuity would have been lost.

The urge to self-expression may appear at any hour in the kindergarten day, though there are certain times when it is more likely to appear and when it can most easily be encouraged and certain other times when originality and unpredicted variations are undesirable. As one teacher of older children said, "When my children show originality in spelling, I discourage it; when they show originality in composition, I greet it with joy."



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As the Mural Grows, New Sheets Are Added.

Continued experimentation with materials (or with words or social contacts or what not) leads not only to improvement in our own techniques but also to a truer appreciation of the work of others. Strangely, perhaps, experience and increased ability make the individual far more appreciative of other people's skillful work. The amateur musician appreciates the real musician, the amateur painter the real artist far more than a wholly inexperienced individual could understand or appreciate the work of either one. Sometimes we marvel at things completely outside our own experience, but our highest admiration is given to accomplishments in fields we understand.

What Is Creative? The term *self-expression* or *creative self-expression* is used ordinarily to mean not merely a bald giving of fact or report, but one which is tinged with personal attitude or conviction or desire. If we ask a child if he likes dogs, an answer "Yes" tells us little of the child himself as different from other children. If, on the other hand, he answers, "I would if they sang songs instead of barking," we can be fairly sure that the child has expressed his true self in his answer. He has added something of his own; he has created. Whenever a statement or a product is not merely a report or copy of something seen or heard, but is rather a report or representation colored by the personality and enriched by the ideas of the maker, then we have true creation.

We cannot create out of nothing. Even in imagination, we create by recombining earlier experiences and memories and imaginings. Suppose the adult tries to invent a brand-new sort of human being who is supposed to inhabit another planet. He can do this only by combining parts of animals which he has seen in life or in pictures or by adding parts from pictures which are the attempts of some other imaginer. The result may have six feet, one arm, the head of a horse with the horn of a unicorn and the voice of a crow, but there will be nothing absolutely new. And so in any other sort of creation, we merely put together bits of our previous or present experience. The creations of the child are the combinations of his experience and are often crude and extremely simple. They frequently are exactly like creations made by other people at other times but as long as the child feels that they are original with him then they are as truly created as if they were occurring for the first time.

A delightful example of the way in which creative expression is an outgrowth of experience is found in the account of the kindergarten child whose father played the cello in the city symphony. Because of illness the child had been absent from school for several weeks and when he returned he had not only a wonderful coat of tan from light treatments but he also had an amazing shock of uncut hair about which he was very self-conscious . . .

As he settled himself with paper and crayons he smiled and said aloud to himself, "I know! I'll make a cello." With a flourish of his orange crayon he made a somewhat ovalish figure and then to this he appended the standard which supports the cello. There was no further verbalization; but when the picture was finished it was obvious that his thoughts had not stayed long with the cello. The support to the cello had been fashioned into a neck, the somewhat ovalish figure now bore facial features almost completely covered over with brown, and from the top of the "head" there was a heavy and bristly outcropping of orange. He asked the teacher to write down the story of his picture and this is it:

"Once there was a man. His hair grew longer and longer. Then he grew sunburned. Then they took him to the barber. He snipped the hair off. And he used the scissors. Then he used the brush, then he used the powder. Then he went home. Then his hair felt so-o-o prickly. Then it was time for bed."

Outlets for Creative Expression in the Kindergarten. Creative expression is the characteristic which distinguishes the artist from the routine worker. In the following paragraphs we shall consider the various arts as they appear in rudimentary form in the kindergarten. Few children will ever go beyond a very elementary type of artistic development, but all children for the sake of their own satisfaction and their own emotional and intellectual development need opportunities for experimentation and practice in self-expression. It is largely through this experimentation and practice that the child's concepts are clarified and new patterns of interrelatedness are set up for his ideas. We cannot measure the value of creative expression through the perfection of the product, for it is not what the child does to the material or media of self-expression that counts, but it is what the use of the material or media does for the child.

The Writer and the Speaker. One of the most common forms of self-expression and of artistic creation is found in words, either spoken or written. The kindergarten child is not yet ready to write down words for himself though he is well able to dictate letters and stories to be written by an adult. (See Chapters IX and XVII.) In the line of oral speech the kindergarten child is fairly efficient. He has mastered a working vocabulary and many simple grammatical forms. He has little difficulty in expressing his desires and his meanings. To be sure, he lacks some necessary words, but he can ask for those and will quickly learn new words which are useful to him.

All the kindergarten child needs is practice and something to talk about. The child who is not allowed to speak does not learn to speak well. The foreigner who has learned his English from reading only, uses bookish and not colloquial terms, and he pronounces his words as they are spelled and not as they are commonly pronounced (two quite different things with English). So the child who has no opportunity to try out new words and new expressions does not learn them or else learns them erroneously.

In the kindergarten, there should be many conversations between children and between teacher and children in which the child has the opportunity to make a vital contribution.

Sometimes our five-year-olds seem almost too creative in their use of words, and the fascination of the tall-tales which they find themselves spinning leads them to confuse fact and fancy. In such cases it is well to help the child make a distinction between the factual report and the fanciful tale. Each can be creative in its own way, but the kind of creativity acceptable in one situation is not acceptable in the other. When the child obviously begins to ramble out of bounds in his factual report the teacher may politely ask him to save that kind of material until some later time when they will be having "make-up" stories. She may then further ask him to continue with his present interesting statement of facts. Provisions should be made in the kindergarten for both kinds of creative verbalization.

The Actor. When words fail us, we all fall back upon gesture to express our meanings. We shrug our shoulders, we gasp with surprise, we laugh, and we cry. Such simple gestures are the elements of dramatization. The small child does all these things; moreover, he

delights in walking like the lame man, crowing like the rooster, tooting and rumbling like the train. These are but ways of expressing himself in the character of different persons, animals, and machines. And is not the lame man even more lame when we next see him if we have limped with him in memory? Is not the rooster even cockier and more strenuously vocal if we know just how it feels to crow? And does not the train rush by with even a greater thrill when we have rushed for it many times?

In the kindergarten, dramatization often starts in some such simple form as merely representing the feature which is most striking to the child. The lame man may have worn a gray suit and spectacles and a felt hat, but the thing which the small child reproduces or caricatures is the one feature without which the man would not be lame. As the child develops, he will reproduce larger units using more detail and introducing elements which may lie quite far back in his experience.

Dramatization not only gives pleasure to the child in the form of self-expression, but it is a means of clarifying the child's experiences and understanding. If he plays house, for example, his understanding of the tasks of the housekeeper becomes clearer as he tries to reproduce them. If at some point he realizes that he does not know just how his mother holds the broom or just what dishes she uses in the oven, such realization will, perhaps, inspire him to observe more carefully when he goes home. Similarly, dramatization of a story will clear up certain vague notions or will suggest an appeal to the teacher for the needed explanation.

Teachers can learn much about the child's thoughts and feelings by observing and listening to dramatic play activities. In his dramatic play the child frequently finds it possible to give expression to thoughts and feelings which otherwise remain closely pent up. The modern projective technique¹ used in child study is really little more than controlled study of the type of play which we frequently casually observe in our kindergartens. We would probably do well to make more use of the opportunity which dramatic play situations offer us for understanding the child.

The Musician. Few people classify themselves as musicians or claim any of the traits of musicians, yet which of us does not straighten his

¹ Murphy, L. B., and Horowitz, R., "Projective Methods in the Psychological Study of Children," *Journal of Experimental Education*, 1938, 7: 133-140

shoulders and step out in perfect time when a band plays as we walk down a street? Rhythm appears in many of our everyday activities and many people find that occupations which are uninteresting and boring lose much of their disagreeable tang if they are accompanied by music. More than that, quick music will speed up the rate at which we move, slow music may retard our movements almost to the stopping point.

Small children show much delight in responding to music. They enjoy experimentation with musical sounds. The young child often sings or hums to himself songs which he has heard, or tunes which he makes up or happens upon for the time being. His fingers strike varying successions of notes on the piano, he taps the drums and blows into the horns which he finds in his environment. All these are youthful ways of creative self-expression in the realm of music. Special provisions for music in the kindergarten will be given in Chapters XIII and XIV in some detail.

The Dancer. The dancer combines an interest in bodily movement with an interest in music. While most people cannot listen to music without at least some small bodily movements, certain people interpret and enjoy that music best when they move their entire body in keeping with it. We find even the baby waving his arms rhythmically, and later, when he is fairly stable on his feet, we see him hopping and jumping, at first clumsily to be sure, but gradually with more and more facility and grace of movement. Dancing is probably one of the most natural ways for young children to express themselves. They enjoy dancing provided there is not too much exact movement involved; they love to march. Although many opportunities for such expression occur during the kindergarten day, in the rhythm period special encouragement is given to bodily response to music. It is at this time that the mood and the rhythm of music offer concerted appeal to all. Free bodily response rather than patterned steps is the ideal sought in the kindergarten rhythm period.

The Sketcher and the Painter. The person who works with pencils, paints, and crayons expresses himself through reproducing his observations and feelings in the form of pictures. These pictures range from the detailed photographic type which attempts to depict every-



Public Schools, Oakland, Calif.

Complete Absorption

thing seen, to the vague impressionistic type which tries to portray an emotion or a feeling rather than to give a representation of objects.

The pictures of most five-year-olds may be said to be schematic or symbolic in type. The child's chief concern is the setting down of an idea and he is in no wise limited by what he actually sees. He may, for example, include in the same picture of a house both the exterior and the interior. It does not seem to him to be the least out of place to see the people and the furniture through the opaque walls. He knows there are people and things in the house, so he puts them there!

Making pictures, like other forms of self-expression, furnishes joy and satisfaction to the child. The pictures are also an excellent check upon memory, particularly upon the number of details which have made an impression upon the child. Often the child can tell more about an experience or tell of what he is thinking better with a bit of crayon than with words. For some children drawing seems to be a tremendous release.

The Modeler. Many objects are more easily reproduced in a three-dimensional material than they are through pictures. Elephants and chairs, for example, are more easily recognized in a crude bit of clay work than in an equally crude paper-and-pencil reproduction. The child likes to work with clay, likes to manipulate the material and watch it change as he exerts pressure here and there. He presses his fingers into the damp clay, and leaves there their impression. He feels delight in the notion that that is a picture of his own fingers in the clay. Gradually he becomes more expert in his manipulation of the clay and comes to feel the joy of making really acceptable animals, dishes, and other things from the clay.

The Architect. There are few of the arts which are so enthusiastically enjoyed by the five-year-old as building. Some of the buildings are of blocks, large or small. Of large blocks, buildings great enough to let the children walk (or crawl) inside can be made. The smaller ones are for dolls or imaginary inhabitants. Other structures are made from wood and nails. While actual houses may be too difficult to attempt, there are birdhouses, chicken coops, play boats, wagons, footstools, trays, etc., well within the sphere of the youthful builder.

The dramatic use of building increases with age until by age five the block buildings serve often as a stage setting for play or work. There is some evidence that between the ages of six and seven most children use such materials as paint and clay and wood to express the ideas which for a time were represented by blocks.

SUMMARY

While it is, of course, possible that in any kindergarten group we may have a child who some day will become a great artist, there is only a small chance of our recognizing him as such when he is a child. Ninety-nine children out of every hundred will be not artists but artisans, skilled workers of one kind or another. If these artisans work with the feeling that they themselves are giving something to their work, whether it be a special touch to a loaf of bread or a bit of special care in screwing bolts on an automobile, then they will have the satisfaction of expressing themselves, their standards, their ideas, their skills, their desires, of being to some slight degree an artist.

If the kindergarten fails to give the child the satisfaction of enjoying his work, of realizing that his own ideas and memories and plans have a real value, if, in other words, the kindergarten stresses teaching a child to follow directions blindly, to do just what he is told to do and no more, to keep his thoughts and his questions and his wishes wholly within himself, then the kindergarten will encourage the development of dull, routine workers, factory "hands" as we so appropriately call them, instead of the alert, interested, happy workers who can change their minds when this is desirable and who will add to the wisdom and the happiness of the world.

QUESTIONS AND PROBLEMS

1. List all the things you personally would like to try to make. Check the ones you have ever tried to make.
2. What activities in daily life are done more efficiently if they are routinized? What ones bettered by departing from routine?
3. What life situations seem to be most frequently dramatized by five-year-olds?
4. What provisions could you make in the kindergarten for encouraging but controlling the telling of fanciful tales?

5. An immature child in the kindergarten group seems to take great delight in wrecking the block buildings under construction. How could you direct his energy into creative channels?

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Starting the Kindergarten Year

MOST kindergarten teachers are faced with the problem of introducing the young child to school life. If the introduction is a happy one, the child will develop a joy in school which will carry him safely over the difficult days which are bound to come occasionally. Most children look forward eagerly to starting school. They come to school enormously pleased with their own advanced age and ready to like everything which is done. A few children may be upset at the prospect of the absent mother. Many children will tend to run about the room as if they were in the home of a playmate and will have no notion of responsibility or of staying with a bit of work. Under the guidance of a wise teacher, this heterogeneous collection of children should grow during a year into a fairly homogeneous group, able to conduct themselves according to the standards of the school, and able to work together happily without losing any of the valuable characteristics of individuality. Much depends upon a good start. While it is possible to take a group of children who have an unfortunate start and mold them into a happy, busy group, it is much easier to work with a group which has had a more auspicious introduction to school.

A First Day in Kindergarten. What shall be the program for the first day of kindergarten? That is a question asked not only by teachers-to-be but by teachers of long experience as well. The personnel of the entering group greatly affects the answer to this question. Obviously one cannot plan a detailed program which would be equally appropriate for all the widely divergent groups found in schools. The safest policy for the first day or even other days is to have at least a skeleton program.

The kindergarten teacher should know in advance something about



Bricker—Cincinnati Public Schools

Mothers and Children Get Acquainted with the School.

the individuals who will make up her group. There is a variety of ways in which the information can be acquired, some of which are discussed rather fully in Chapter XXI under "Records from the Home for Use in the School." If the formal registration of the entering child must be done on the opening day of school, then it should be done in the office of the principal and not in the kindergarten room. The teacher ought to be free from all forms of clerical work so that she can devote her whole attention to the "new" children. And if you think that isn't enough to keep her busy, just step into a kindergarten room some opening morning!

The child should be left in the kindergarten while the mother or older brother or sister registers him in the office. This procedure, incidentally, assures the immediate or early exit of the individual who has brought the child to kindergarten. In the majority of cases the child makes an easier and happier adjustment to the school situation if he does not find himself torn between the home and the school as represented by the mother and the teacher. If the mother stays, the child is likely to display some sort of undesirable behavior. He may refuse to leave his mother's side; he may leave her momentarily but still turn to her for sanction for his every move; he may enter the group but in a manner that incites his mother to interfere, with the result that the child is confronted with both mother and teacher control. Sometimes the child may be actually embarrassed by his mother's presence. One small boy whose mother was of the oversolicitous, interfering type dismissed his mother in this rather perfunctory fashion: "Mother, I think you had better go home now. I think the baby might need you. I'll be seeing you when school is out." Of course at the other extreme there is the child who is so very timid that to push him directly into a large group without giving him the assurance of parental presence would be asking far too much of his emotional make-up. In general, however, the first day in kindergarten is more successful from the point of view of both teacher and child if the parents or other relatives do not stay with the child.

When the child first comes into the kindergarten he should be greeted in a friendly, pleasant, but not effervescent manner by the teacher. The child, upon being asked, may be expected to tell his name so that the teacher may write it upon a slip of paper. The child can then either thumbtack or stick the tag near the hook or the locker

which he chooses for his own. Even though he cannot read the tag he will doubtless remember his hook or locker by the way in which he has posted his tag. After he has made himself a part of the kindergarten by thus "taking unto himself" a hanger or cubicle he is ready to acquaint himself with the rest of the setup which henceforth he is to know as his kindergarten.

The room should be so set up that there will be various centers of interest. On one table the child may find various kinds of manipulative toys such as beads and peg boards or simple form-board puzzles. On another table he may find paper and crayons. Over in the corner he may see some dolls, and close by a suitcase or two containing—who knows what? Close by the dolls there may be building blocks which may suggest chairs and beds for the dolls, or perhaps garages and hangars for the toy trucks and airplanes. Lined up on a low shelf or on the library table will be a few attractive and familiar books such as Tennyson's *Mother Goose*, Beatrix Potter's *Peter Rabbit*, Romney Gay's *Corally Crothers*, Marjory Flack's *Angus and the Cat*, Lois Lenski's *Little Auto*, and a train and an airplane book, perhaps the one in the Social Science Series called *An Engine Story*, and *An Airplane Ride*, together with perhaps Lena Towsley's *Peggy and Peter*, Berta and Elmer Hader's *The Little Stone House* and Ann Weil's *The Very First Day*. These will be sure to win the child's attention. The welcoming and comfortable chairs about the library table will also attract the child. In one corner or on one side of the room there may be apparatus for large-muscle activity. This might be a jungle gym, a teeter-totter, a slide, a climbing rope, or even a swing. The sand table with its moist sand and variety of simple sand toys would lure even the most timid child, except, perhaps, the rare very timid child who sees nothing in all the kindergarten setup which can move him from the spot in which he seems to be rooted. Often the timid child is the very practical-minded child and for just such practical-minded children as this the teacher will reserve specific tasks. The goldfish or turtles must be fed, or certain tables have need of being dusted, or perhaps the flowers need watering. If the timid child feels that he is doing something worth while, he often loses his timidity in the act of performing the task. And once uprooted from his spot he can more easily and graciously bring himself to explore the rest of the room. He is like the grown-ups who enjoy themselves in a group of

strangers more if they have a feeling of being a necessary and an essential part of the group. Most timid children become more shy if the teacher makes obvious efforts to make them feel at home, while they lose some of their shyness if accepted as a matter of course and given something to take their minds off themselves and their own behavior.

At some time during the first half hour of play, the teacher may sound a few notes on the piano. The children will naturally turn toward the piano and she can at this time tell them what the signal means. There are any number of signals which the teacher may use, but one which has repetition and some length is desirable because while it calls for the immediate attention of every child yet it does not call for a tense military response. A very satisfactory musical signal is:



The thought accompanying is, "Stand up, stand straight, stand tall, stand still, if you please." It can be explained to the children that this response is desired from them so that everyone in the room can get the message which the teacher has to give them at the time. At first the signal is little more than a game. The teacher plays the signal again while all are assembled and of course much praise goes to those who stand up when they hear it. Perhaps the teacher asks them to close their eyes to see whether they know what to do even if they don't see the signal being played. Again more praise for those who stand and little, if any, comment about those who do not stand. By the end of the second or third week, the signal should be automatic as far as total group response is concerned. The response to the signal is established not because the teacher wants to impress her authority upon the group, but rather as a safety device. If the teacher knows that no matter what the emergency may be she can count on having the attention of each child simply by playing the signal, then much more real freedom can be enjoyed throughout the kindergarten days.

On the first morning the teacher makes it a point to move with apparent casualness from child to child and from group to group entering into the children's activities. She may sit down to string beads with some of the children, she may make passing comments on the

sand or doll play, she may put a few blocks together to make a "bed" on which the dolls could rest, or she may sit down with the children at the library table to enjoy the books with them. Upon request she might read from some of the books. It is always better for her to be occupied than to seem to be standing about as though on guard.

If the materials which are at the child's disposal on this first day are those which require little or no restriction as to their use, the suggestions which the teacher makes to the children can be positive in their nature, and she will find little if any occasion for using commands. If the necessity for using a command does arise, and certainly it may, she must be sure that her command is carried out.

Toward the end of three quarters of an hour of such exploratory play, some of the children may be shown individually how to return their playthings to the cupboards. The signal may be sounded and all the children invited to sit down by the piano. If the teacher has an official list of the children enrolled, a game may be made of calling the names and seeing which child responds to each name. If each child stands as his name is called, then this not only gives the child bodily exercise, but it also gives the others a chance to identify him. If the teacher calls her own name and responds in like fashion to her name the children enjoy the camaraderie and learn the teacher's name as well. Sometimes a child fails to respond to the name given in the records. Much trouble will be saved if the teacher knows in advance not only the child's real name but also the name by which he is called. Many a Richard has failed to answer in kindergarten because he thought his name was Dick or Junior.

After this game of calling the roll, the group may enjoy repeating together with the teacher some of the familiar nursery rhymes and learning to perform finger plays. A finger play is something which the child can take home with him on the first day and in so doing answer that inevitable question, "Well, what did you learn today?" which so often baffles the child just entering on his school career.

If there are toilet facilities in the kindergarten unit, then it is probable that many of the children have already discovered or been directed to them within the first hour. If the toilet facilities are in another part of the building, then it is high time, the children having been in kindergarten an hour or more, that the location be disclosed.

The first trip outside the kindergarten room is a great adventure.

Some children may even be loath to leave the security of the kindergarten room, in which case the teacher must make sure that the timid child senses extra security by being near her. Since the girls will go to one toilet room and the boys to another, the building janitor or one of the older grade-school boys could, if they would, be of great help. After two or three days, or at most a week or so, the toilet procedures should become pretty much matters of routine concern. This is true also of the use of the drinking fountain.

Upon returning from this last adventure, a bit of running music played on the piano will intrigue most of the group into that activity. A signal such as



will return the group to the piano where they may listen to strongly accented music in four-four time. Many children who could not bring themselves to respond to the running music will respond to this with various hand movements such as clapping, tapping the floor, and beating an imaginary drum. Original responses may be observed and commented upon, thus from the first day encouraging the child to use his own initiative. Sometimes it is wise to leave singing out of the program until a later day. If, however, the teacher herself has a pleasant singing voice, the children will enjoy listening while she sings and many may even join in on this very first day.

The lunch period, if there is to be one in the kindergarten, is often not initiated on the first day. The rest period, while it is not omitted the first day, may well be a very short period, perhaps not more than five minutes in length. If there are some children who object to stretching out on the rugs in the darkened room it is well to let them observe the more co-operative and self-reliant individuals with the suggestion that the reluctant ones can learn how to do it by watching the others.

When the rugs are rolled or folded and put either into the lockers or in a pile, the children may group themselves about the teacher for a story. In older practice, the story was always told, but now, depending upon the teacher's ability to tell stories and upon the supply of attractively illustrated books available, the story is either read or told. The story told, if told well, gives the teacher a somewhat more direct

contact with her listeners; on the other hand the story which is read from a book with gay and attractive pictures, shown at the same time, has the advantage of appealing to both the visual- and the auditory-minded individuals. A simple game such as "Mother Kitty and Baby Kitty" (see page 273) might be played before going home.

Out-of-door play is not recommended for the first day unless the kindergarten has a private playground. It is asking almost too much of the children to acquaint themselves with both the indoor routine and the outdoor regulations all in one day.

It is always well in planning for the initial days to make sure that the children have something desirable to look forward to in succeeding days. The anticipated activity may be out-of-door play, or it may be the use of certain materials such as hammers and saws and paints, or it may be something as simple as the use of a particular section of the room such as the workshop or the balcony.

If parents call for the children it is better for them to wait outside the door than to come into the kindergarten room. The children should be praised and encouraged for putting on their own wraps, but they should also be helped in difficult places so that they can learn the technique without too great a struggle.

If the traffic is heavy about the school, either the teacher or the school police will see the children across the first intersection. A group of two or three children usually will exercise more caution in regard to traffic than will a larger group. The majority of five-year-old children will be able to go to and from kindergarten unescorted. Out of a group of fifty children, there will always be two or three children whose mothers feel that for one reason or another they must be "delivered and called for."

The success of the first day in kindergarten cannot be measured by the smoothness with which the day proceeds. The smoothness depends in a large measure upon the character of the entering group. The word character is used advisedly, for truly groups of five-year-olds can have character. The combination of personalities making up the group can make the group enthusiastic or unresponsive, alert or dull, co-operative or defiant, timid or forward, self-reliant or dependent. The details of the program must be adapted to the specific group.

It is to be hoped that no matter how smoothly or how haltingly the day may have progressed, the individuals making up the group will

have formed the following opinions of school from this their first day in the kindergarten: first, that school is a pleasant place; second, that in school there are many interesting and worth-while things to do and learn; third, that being a member of a group necessitates conforming to certain rules; fourth, that the teacher is a friendly and poised individual whose sympathy, judgment, and sense of justice may be relied upon; and fifth, that he, the child, is a part of the school.

The Nursery-School Graduate in Kindergarten. If the majority of the children entering the kindergarten have had nursery-school experience, then the program suggested above would not be adequate to the needs and interests of the children. Most nursery-school children have already had much time¹ to experiment with many kinds of manipulative play materials and apparatus for physical activity. They have all had the experience of belonging to a social group outside of the family unit. Most nursery-school children have learned to care for their own toilet needs, and many, if not all, have had daily opportunity for practice in self-help. Songs, rhythms, and stories have been included in their programs. The teacher is already recognized by these children as a friendly person of considerable wisdom.

It happens not infrequently in a kindergarten made up of a combination of nursery-school graduates and children without nursery-school experience that the nursery-school graduates dominate the situation to the extent of almost overriding those children who have had little or no experience in a social group. To forestall such a happening in one case, the children who were to enter kindergarten directly from home were enrolled three days before the other group so that the children without nursery-school experience might get something of a group feeling to match that of the nursery-school group. With this preliminary three-day period the two groups met and were then blended into a new whole.

The statement is sometimes made that because the child has had nursery-school experience he is prone to be bored by his kindergarten experience. Such a condition may result from one of two causes: either the nursery school which the child has attended has been conducted too much like a kindergarten, or the kindergarten which the child enters fails to offer enough in the way of materials, experiences,

¹ Many nursery schools admit children between two years and five years of age

subject matter, and problem-solving situations to stimulate the child. The same difficulty arose when the kindergarten was first appended to the grade school. Through the co-operation of first-grade and kindergarten teachers a unified kindergarten and first-grade program was worked out. When the nursery-school and kindergarten teachers co-operate in the same fashion, then with equal smoothness a unified nursery-school and kindergarten program can be evolved.

The teacher needs to see that the nursery-school child has some "first" kindergarten experiences which will make him feel that he is now in a school for "big" children. He will come back to and will enjoy through the year many of the materials which he enjoyed in nursery school. But on the first day of kindergarten we need to be sure that he meets some truly new experiences and some truly new materials. Meeting new experiences will come in the way of adapting to new routines and exploring the new environment. "Something old and something new" might be a slogan for us in making provisions for new materials. It would be a pity if the child coming into kindergarten found just the same sets of blocks which he used in nursery school and no more. How disappointing it would be to find the same old puzzles and no others, and what if the library table held only the same old books which he had looked at over and over again in the nursery school! It is a thrill to see something of the old and familiar, but it is nothing short of drab disappointment to meet with nothing new. The kindergarten teacher must plan carefully so that the child will not be disappointed by the available materials and the standards of conduct.

For those children who have come through the nursery school, the purely manipulative table toys would hold little charm and they might better be replaced by such things as untried nine-to-twelve-piece puzzles, fairly complex form boards, plasticine, and an abundance of large drawing sheets and new crayons. The sand table, if there is to be one, might contain wooden boats, trains and airplanes suggestive of docks, tunnels and hangars. Instead of the spoons and molds of the nursery-school sand box the child would be delighted to find shiny measuring cups of various sizes, and perhaps even a sturdily constructed set of scales. The doll corner, without much of the necessary housekeeping equipment, would be a challenge to block builders, especially if a set of interlocking blocks chanced to be stored near

by. The library table might wisely be supplied with new and with familiar books in a two-to-one proportion. In the rhythm period, conformity to particular standards might well be stressed on the first day. A new element might be introduced by stressing the ability to stop exactly when the music stopped. Old songs would be enjoyed and one new song would be introduced or the music for one new song could be presented and the words promised for the following day. "Something old and something new" could also be in order for the story hour. A circle game such as playing "Postman" (see p. 270) with the large rubber ball would help the children to get the idea that in the kindergarten there are times when the fun of the group depends upon everyone's self-control and co-operation.

The nursery-school child who enters the kindergarten gets almost as great a thrill out of his promotion into the kindergarten as does the child who enters the kindergarten directly from home. In one sense perhaps the nursery-school child's pleasure and joy is greater because he can share his anticipation with his group.

Because of the motor co-ordination, good health habits, interest in music and stories, independence, and social balance he has acquired through his nursery-school experience, his actual entrance into the kindergarten is apt to be an experience of unalloyed joy with no intense emotional disturbances. The nursery-school graduate, usually with little delay, can throw his energy and intelligence into the business of creating with the teacher a purposeful program centered around a variety of interest.

Perhaps a word of warning ought to be interjected at this point. We think of those children who have attended nursery school for two or three years as having had a great deal of experience in group living. For that reason we often assume their kindergarten adjustment will be a very happy and a very simple matter. Usually it is, if a group of children who have been in nursery school move on as a group into the kindergarten. But if a child leaves his group and makes his entrance alone into a kindergarten group, then it may be that he will be as "homesick" for his old group as some children are for home itself. This is not too impossible for most of us to understand, for probably each of us could attest to the fact that there exists no more lonely feeling than that of being alone in a crowd of people, all of whom, yourself excepted, seem to know one another very well.

The Kindergarten Time Schedule. A sampling of the kindergarten time schedules in various parts of the United States indicates that little effort has been made to standardize them. This lack of standardization may be judged by some to be an undesirable, by others a most desirable, feature of kindergarten education. Perhaps the lack of conformity is evidence of the appreciation which the kindergarten has for individual differences. Kindergarten sessions vary greatly in duration. Some few begin as early as eight-thirty and are not terminated until three-thirty. Some begin at eight-thirty and run through until noon. But the majority of kindergartens operate on a two- or three-hour schedule, one session beginning at nine and a second session with a different group of children beginning around one-thirty. One of the most deplorable situations so far as scheduling is concerned is that in which a single kindergarten teacher has been known to run three separate sessions in one day, one group arriving at eight-fifteen and remaining until ten-fifteen, a second group arriving at ten-thirty and leaving at twelve-thirty, and a third group arriving at one-thirty and being dismissed at three-thirty.

In the early days of kindergartens, the teacher spent the mornings only with the children, her afternoons being devoted to making contacts in one way or another with the parents. There are still some few schools in which this practice is continued or in some cases we might say is being newly initiated. In one fairly large school system two teachers are provided for the two groups; each teacher has her own group but assists the other when her own group is not in attendance. In the same system the kindergartens are in session part time only during the first two weeks of the school year, and the teachers spend the rest of the time calling on the families, getting background information and seeing the child in his own environment.

The length of the kindergarten day is dependent on many factors. But provisions being adequate—size and preparation of the staff, number of children enrolled, available space both indoors and out, adequate equipment and supplies, and provisions for luncheon and rest—it is probable that the more hours spent at kindergarten the more profitable will be the kindergarten experience. The teacher who has the opportunity to observe her children in the greatest number of situations is the one who can best help each toward a balanced and wholesome development.

Typical Time Schedules. The sampling of kindergarten time schedules here set down will be evidence of the fact that there is tremendous variation in present-day kindergarten scheduling:

TYPE I—TWO-HOUR SESSION

- 8:30- 8:40—Inspection, roll call, good-morning greeting
- 8:40- 9:30—Work period, construction, and evaluation of work accomplished
- 9:30- 9:45—Lavatory
- 9:45- 9:55—Singing
- 9:55-10:05—Rhythms
- 10:05-10:15—Story
- 10:15-10:45—Games

TYPE II—TWO-AND-ONE-HALF-HOUR SESSION

- 9:00- 9:15—Conversation and greetings
- 9:15- 9:55—Group work
- 9:55-10:00—Housekeeping
- 10:00-10:10—Recess and toilet
- 10:10-10:35—Games
- 10:35-10:50—Milk
- 10:50-10:55—Rest
- 10:55-11:30—Varied activities, music, dramatics, stories, rhythms

TYPE III—THREE-HOUR SESSION

- 8:45- 9:15—Arrival, inspection, and free play
- 9:15-10:10—Conference and rhythmic activities
- 10:10-10:35—Luncheon period
- 10:35-10:45—Rest period
- 10:45-11:15—Music and language
- 11:15-11:45—Varied activities, games, outdoor play, excursions

TYPE IV—THREE-AND-ONE-HALF-HOUR SESSION

- 8:30- 9:00—Individual greetings, health inspection, room interests
- 9:00- 9:45—Social living (part or all of the group assembled)
- 9:45-10:00—Clean-up and preparation for lunch
- 10:00-10:30—Social lunch hour followed by rest
- 10:30-11:00—Active rhythms followed by music appreciation and singing
- 11:00-11:30—Guided activities which are varied
- 11:30-11:55—Language arts—books, stories, dramatic play, creative expression, sharing, and listening
- 11:55-12:00—Dismissal, with emphasis on a happy parting

TYPE V—AN ALL-DAY SESSION

- 8:30- 9:15—Arrival, inspection, and free play
- 9:15- 9:40—Group meeting, sharing interests, and discussing work plans
- 9:40- 9:50—Fruit juice
- 9:50-10:30—Work period
- 10:30-11:00—Cleaning up, library and story time
- 11:00-11:30—Music and preparation for luncheon
- 11:30-12:15—Luncheon
- 12:15- 1:15—Setting up beds and play outside¹
- 1:15- 1:30—Preparation for rest
- 1:30- 2:30—Rest on beds
- 2:30- 3:00—Putting on shoes, making beds, taking care of toilet needs, milk and crackers
- 3:00- 3:30—Outside play or listening to records and stories
- 3:30—Departure

Roughly one may say that the kindergarten devotes 36 per cent of its day to physical education, including play on apparatus, outdoor play, games, rhythms, rest, and lunch; 33 per cent of its time to general arts, including housekeeping activities, fine and industrial art, and dramatic art; 16 per cent of its time to general assemblies, including plans for work, evaluation of work, behavior, hygiene, and nature, 9 per cent of its time to literature and language, including stories told and read, poems read and repeated, conversation, and original stories; 6 per cent of its time to music, including singing, music appreciation, and rhythm band work.² Some of the above schedules are much more ideal than others. You and I could find points to criticize in each, many in some and few in others; but again we should remind ourselves that innumerable factors and combinations of factors in any kindergarten may be expected to affect the daily schedule. The program details as well as the time scheduling will be affected by such things as the background of the children, the personality of the teacher, the place of the kindergarten in the organization of the school, and the location of the school itself. All these and many

¹ As suggested earlier each schedule is dependent on many factors. Logically, rest on beds would follow immediately after luncheon; but in this particular setup, all activities including eating and resting are carried on in a single room, and it seems best to have the children outside while the dishes are being cared for and the room is being set in final order for the rest hour.

² Davis, Mary D., *General Practice in Kindergarten Education in the United States*, National Education Association, Washington, D.C., 1925

other factors, if treated with proper consideration, might be expected to affect the kindergarten program. It goes without saying, but we'll say it anyway, that any kindergarten schedule set down on paper is ideally merely suggestive of what may be happening in the kindergarten at any hour or any minute. Needs and interests will determine what actually is happening.

In planning her program the wise teacher will first of all seek out those experiences which will be the greatest common denominator for the group. If by chance she finds that she has a group of children who have had a great many opportunities to participate either in family or other group musical experiences, then she may well feature music at the beginning of the year. If many in the group have had interesting summer experiences in the way of out-of-door life, she may well feature an interest in the out-of-door world and all its wonders.

It might be that a negative factor would be the common denominator. It might be, for example, that the particular group of children had had very little in the way of play materials at home and for that reason the free-play period would be the part of the program which would be most featured in the new group. The range of IQ's, the emotional stability, the physical poise, and the initial social behavior as well as the past experience of the group must all be taken into consideration in making out a time schedule.

It is often fallaciously assumed that teachers who have been graduated from institutions of good standing or teachers who have proved themselves to be skilled in the art of teaching are equally efficient in every phase of their teaching. Almost every teacher, however, recognizes in herself the ability to make particular parts of the daily program more worth while and stimulating than others. It is well for the teacher to capitalize on her particular abilities. If, for example, the teacher is able to get the most wholehearted and purposeful response from her group in the work period, she would be justified in giving more time to the period than would the teacher who is seldom able to get the children up to their best in that period. In capitalizing upon her own abilities the teacher must guard, however, against the danger of belittling that part of the program which she herself does not enjoy. The children have a right to a well-rounded program and the teacher has no right to ignore the importance of any particular phase

of the program simply because she herself feels more adequate in other situations.

Building rules and regulations and the class-and-recess schedules of the other groups in the building will of necessity affect the kindergarten time program. For example, it is unwise to schedule a kindergarten rest period while the upper-grade children are having their recess period outside the kindergarten windows. Again, generally speaking, it would be unwise to have the kindergarten children on the playground when the upper-grade children are out for their recess. The sharing of an activity room or a gymnasium or the toilets with the rest of the school would, of course, mean that the kindergarten would have to adhere to a very rigid program at specific times of the day. The modern kindergarten, equipped with lavatories, drinking fountains, and toilets, and having ample play space, is obviously not particularly concerned with the program of other classes.

The geographic location of the kindergarten, whether we consider it from the point of view of the building, the neighborhood, or the city, will have its effect upon the time schedule. If the kindergarten room has an exit directly into a private play yard, the children will doubtless spend more time in outdoor activities than will those children whose door leads into the main hall of a great city school. If there are many places of interest near the school such as parks, stores, firehouses, and the like, the time allotted to excursions will be greater than in a school situated in a purely residential community. In particularly congested districts the kindergarten hour of dismissal may depend upon the class schedules of the school police boys, or the schedule of the official traffic officer of the district. When one considers the vastness of the United States, it is quite improbable that a time program could be devised which would be satisfactory for all localities. The activities recommended for a winter's day in sunny California would differ markedly from those advised for that same winter's day in cold and blustery Minnesota.

SUMMARY

Considering the many factors and combinations of factors in any one kindergarten setup, it would seem that too great standardization of the kindergarten time program would be truly undesirable. A pro-

gram based on the percentage of time allotment derived from the Davis survey of *General Practice in Kindergarten Education in the United States* (see p. 121) and adapted to local community conditions might be expected to meet the needs of kindergarten children more fully than any standardized time schedule. Of the many factors which might affect the drafting of a time schedule, the following are probably the most significant: the background and past experiences of the children, the training and personality of the teacher, the physical plant (e.g., both indoor and outdoor space, materials, and equipment), and the geographic location of the school itself. Any kindergarten time schedule set down on paper is ideally merely suggestive of what may be expected to be happening in the kindergarten at any particular time of the day. In a good kindergarten the needs and the interests of the group will determine what actually is happening at any hour or any minute.

QUESTIONS AND PROBLEMS

1. Plan a kindergarten program for the month of January in Florida, one for the month of January in northern Michigan. Make the session in each case two and a half hours in length.
2. On the first day of school Dorothy is brought to the kindergarten by her fourth-grade brother, and bursts into tears when the brother leaves. What is the teacher to do?
3. In a small school on the opening day, the teacher finds that she will have in her kindergarten ten children who have already had half a year of school, together with fifteen children who are entering for the first time. What situations are likely to arise? How can these be met or forestalled?
4. In a private school in Minnesota, the parents ask to have the kindergarten children stay all day from 9 A.M. to 3 P.M. Assume that the school can provide the necessary space, equipment, and assistance. Plan a program for this six-hour day in the winter and in the late spring.
5. What reasons, if any, would there be for making the first day of school much more brief than later days? Would there be any advantage in continuing short days through all the first week? The first month?

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Progressing Through the Year

1. Areas of Interest; Seasonal Units of Study

THROUGH the original parent interview* the teacher comes to have an understanding of the background and interests of the children to be enrolled in any one kindergarten group. After observing and working with the group for a few days she will be able roughly to determine the abilities represented in the group. Then with the group's background, interests, and abilities in mind, she can critically analyze and evaluate the tentative plans which she has set up for the year's work. Certain types of activity will come into any kindergarten program. Stories, music, and rest will be very much the same from one year to another. There will, of course, be differences in techniques determined by the particular group of children. There will be differences in the actual stories and music used, but these will be minor differences. The major differences between the program for one kindergarten year and that for another will lie in the centers or areas of interest around which the program is built.

Areas of Interest. The old schools organized their programs around the teacher's intention to teach. Later schools, on the other hand, organized their programs around the child's desire to learn. The old schools believed in knowledge for knowledge's sake; later schools in activity for activity's sake; the schools of the present era take a middle course, recognizing the importance and necessity of having the child's intention to learn and the teacher's intention to teach both incorporated in one and the same program. The unit of work, center of in-

* See Chapter XXI.

terest, activity curriculum, area of interest, or whatever caption one may choose to give it has become the vehicle for bringing activity into the classroom and carrying knowledge out of the classroom.

The outstanding advantage of the unit type of work is that the children have unbounded opportunity to do real thinking. Their problems are ever before them in a more or less concrete fashion, and it is their desire to solve these problems. It is the teacher's business to clarify the child's problem for him and to be ready to supply information, experiences, and materials which will help him to solve his problems. As one educator has said, the teacher's business is to teach the child how to think but not what to think. If the teacher cannot see this last point, if she is going to make all the plans for the children and direct all the activity, then the area-of-interest plan has no more value in kindergarten than did the daily program which was carefully broken up into ten- and fifteen-minute periods of occupation, entertainment, and busywork. Attitudes which grow out of real, not superficial, understanding are among the most significant concomitants of learning.

Selecting Interests. In formulating a plan for the kindergarten year, one must keep in mind the fact that there are many and varied activities, centers of interest, or units of work which may serve as vehicles. The wide range of activities is suggested by a bibliography compiled in 1932 at the Lincoln School.¹ At that time more than 7000 articles on activities and projects had been published. These activities and projects were classified under 300 separate headings. A total of 470 articles, listed under 196 separate headings, had direct bearing upon the planning of the kindergarten program.

Table III on page 128 shows the frequency of these references on the most common units of work.

In many kindergartens the plan is to center the work of the year around from four to six major areas of interest, providing also ample opportunity for the development of a great diversity of minor interests. The major interests, if properly handled, will in no wise exclude other interests, but they will tend to make the efforts and the thoughts of the group course through a given channel during the period in

¹ Carey, A.; Hanna, P. R.; and Meriam, J. L., *Catalog: Units of Work, Activities, Projects, etc.*, Bureau of Publications, Teachers College, Columbia University, 1932

TABLE III

<i>Interests</i>	<i>Number of References</i>
Store	33
Community	27
Construction	17
House	16
Health	15
Nature	13
Home life	12
Dramatics	12
Transportation	12
Christmas	10
Circus	10
Gardening	10
Post office	10

which the particular interest is paramount. It is frequently found that what appeared in the beginning to be a minor interest develops later into a major interest. In one case, for example, the teacher had not planned to give any considerable amount of time to building and construction, but when a steam shovel and a crew of men moved in not fifty yards from the kindergarten door, then obviously that was the time to guide the thinking of the group along the lines of building and construction. The opportunity to make firsthand observations of the problems and activities connected with the building of a home would surely never, literally, come so near again. The life of such an interest may continue from a few days to several weeks; the duration of the interest will depend in part on how pertinent the particular interest is to the group and in part upon the values which the group may be deriving from the activity.

Criteria for Evaluating Interests and Accompanying Activities. If the unit of work is to be worth while it must measure up to certain rather set standards. First, it must be an activity which grows out of the children's experience, preferably real experience but sometimes vicarious experience gained through books or stories. Second, the activity must be sufficiently complex to demand a variety of responses so that many children can make contributions in keeping with their own

abilities. Third, it must be an activity which will broaden the outlook and social understanding of the group. Fourth, the activity must be one that will lead on into other related units of work. Fifth, the activity must be one that will further the children's physical health and well-being. Sixth, the activity must be one that will afford the children some degree of satisfaction.

It is probable that no considerable number of kindergartens will select the same areas of interest and it is also quite possible and most desirable that the interests in any one kindergarten will vary from year to year. Fixed and unchanging programs give objective evidence that the teacher or the school system is giving little heed to the educative possibilities of the great variety of profitable experiences which may be had either in the immediate environment or in the on-moving history of the race. The following very brief quotes, some of which have come from actually listening to the verbalizations accompanying kindergarten children's play activities and some of which are obviously imaginative, serve to prove that even education in the kindergarten must keep pace with the progress of the times.

Read the following and try to put each in its own era. Chronologically they have been jumbled; but they can be put in such an order that the past, present, and future will be represented: "Look, look I've made a horseless carriage." . . . "Bombardier to pilot—OK. Roger!" . . . "You be Marie, you be Yvonne, you be Cecile, you be Annette, and what's the other one's name?" . . . "Bang! Bang! Bang! Look out, the Huns are coming." . . . "I'll fill the lamps while you go out and bring in a pail of water." . . . "Oh, no, Father, you won't need any points for Pabulum, just money." . . . "I'm the *Spirit of St. Louis!*" . . . "My mother is going to fly us to Mexico tomorrow." "Kling! Klank! Quick, blow harder. The iron is getting cold!" . . . "Watch out, kids. I got an atom bomb." . . . "I'll get in and you crank the car" . . . "Come on; let's play this is an escalator." . . . "Last night on our radio I saw a football game."

A unit of work which is not a true unit of work is one that has been taken over root, branch, stem and all from another quite different setting. Although it is the privilege and the responsibility of the school or the teacher to set the stage for exploring an area of interest, and to make tentative outlines of the desirable outcomes of any interest, yet not infrequently unforeseen elements enter into the program to

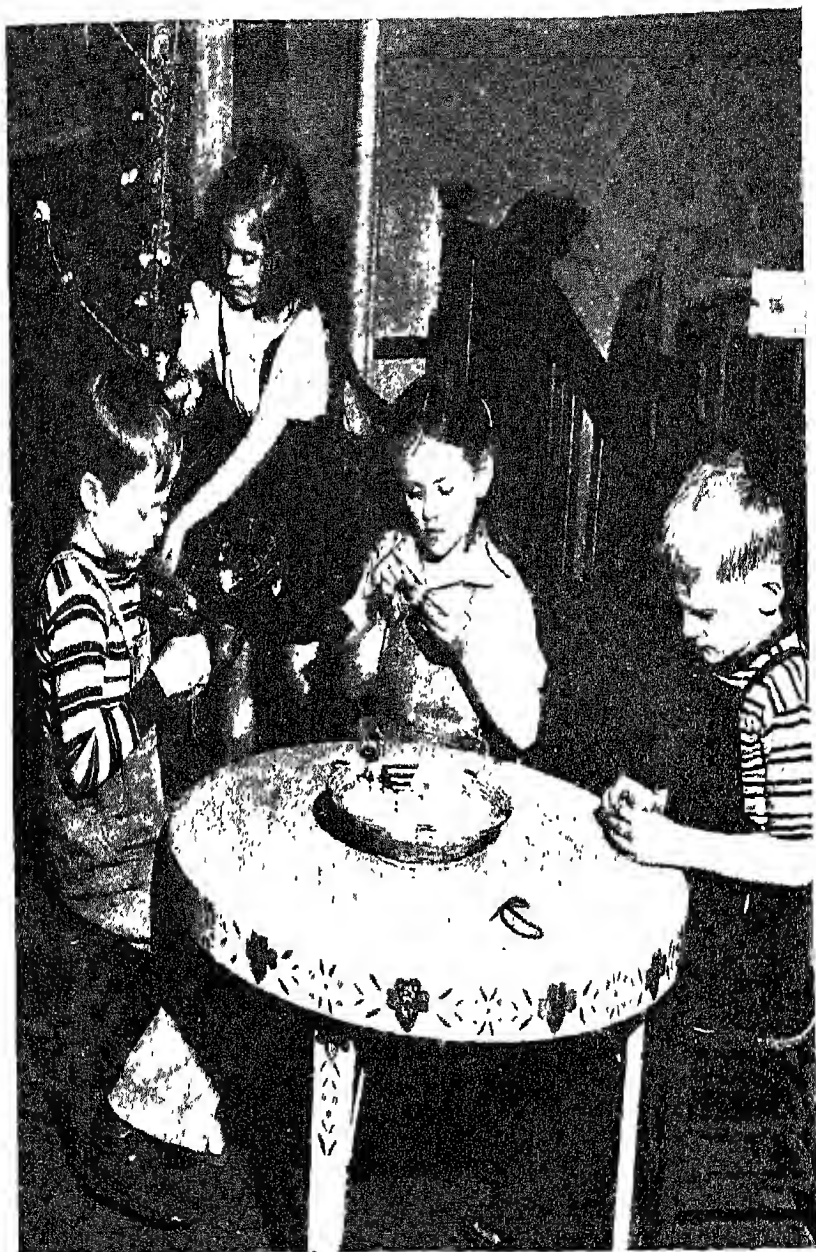
such an extent that the adult's prediction of the trend and the value of the activity proves to be entirely false. Sometimes, as suggested earlier, that which sets out to be but a minor or lesser interest develops through the enthusiasm of the group or through external circumstances into one of the main projects for the year. In one kindergarten the children were sidetracked from pursuing the planned interest by the occurrence of a series of fires* in the neighborhood. Out of this experience grew a very stimulating unit of work on the fireman; this with many ramifications grew into an interest in different community helpers and the interdependence of the members of the community.

There are two particular dangers which any teacher must guard against in launching a program centered around any specific area of interest. The first is the danger of seeing in her own mind a unit carried through to adult perfection, and the danger of her wanting kindergarten children to carry the work through to the same perfection. The second is the danger of expecting each succeeding group to do what the preceding group did in developing an interest. The teacher tends to measure the value of the undertaking in terms of gross output rather than in terms of individual achievement and growth. Occasionally the teacher, having adult perfection and gross output in mind, cannot resist thinking for the children or supplementing their manual efforts so that her own aspiration can be realized. Some of the home furnishings on display in kindergarten playhouses would do credit to high-school art and woodworking departments!

The First Major Interest. The year's work should be based on a succession of wisely guided activities and interests. In the main these will grow out of the common experience of the group. Of necessity, therefore, they will be very simple.

The home, as it is reconstructed and reinterpreted in the kindergarten playhouse corner, is often the first interest around which activity is launched. In many kindergartens this interest develops immediately out of the setup within the kindergarten itself. Dolls and a certain limited amount of furniture and other equipment are supplied by the teacher. As the necessity arises for tables, cupboards, beds,

* See dictated letters, page 298.



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Popcorn and Peanuts for the Birds and the Squirrels

and chairs, the teacher will see to it that the materials are available for the construction of these pieces of furniture. Large blocks often satisfy the first needs. Later, the children will want to make "real" furniture and perhaps a "real" house out of something which is more permanent in its nature. At this time such material and tools as wood, hammers, nails, clay, cloth and paper, crayons, and paint will have to be available. Dishes, rugs, curtains, bedding, to say nothing of doilies, table covers, pictures, wallpaper, books, book ends, flower boxes, and their like will all come in for their share of attention.

Later Interests. The subject of homes may well lead to an interest in the many kinds of homes which may be observed in the community. The birds, the bees, the ants, the spiders, the caterpillars, the squirrels, the chipmunks, the rabbits and any other living creatures in the immediate environment will offer interesting subject matter for consideration. While the life of the animal and insect world may be vivified for the children by bringing the creatures into the kindergarten for short periods of time, in general it is better to observe animal life in its own environment. It is ideal when the children can have an opportunity to make such true friends with wild creatures that they will feel free to come to the children or even to come into the kindergarten room. A pigeon, having been enticed by the children into the room by offerings of corn and grain, used to come to the kindergarten daily at story time and sit on the balcony railing while the children were listening to their story. This interest in living creatures may lead on to an interest in the preparation which all living things are making for the changing seasons.

An excursion into the neighborhood offers a wealth of concrete evidence of the actual changes taking place in nature during autumn. A collection of seeds gathered by the group, or contributions made by individuals, will prove fascinating and educational. A discussion of the various seeds and their modes of traveling and maintaining life through the winter months brings to the child an appreciation of some of the many details of nature's preparation for the coming seasons.

The life and work of the farmer as he gathers in his harvest and stores his food and seeds for the winter may well be considered at this time. A study of the farm, particularly if an excursion can be

made to the farm, may profitably be developed into a major interest for some groups.

Halloween. Halloween fun may interrupt the work on the farm interest, but surely the joy of the preparation for the Halloween parade or party, to say nothing of the importance of the experience of sharing in the planning and execution, would warrant its inclusion. The discussion of the planting of the pumpkin seeds, the rambling of the vines, the harvest of the pumpkins, and the travels of the pumpkins as they find their way from producer to consumer is all fascinating and thrilling. Halloween also offers a wonderful opportunity for the five-year-olds to begin to get an appreciation of weights, sizes, and values. It is a big step in the five-year-old's development to be able to appreciate values. In one kindergarten the group spent some time discussing the relative merits of large and small pumpkins. When the medium-sized pumpkin seemed to have many points in its favor, the scales and tape line were brought out to determine what might be a pumpkin of the right size for a five-year-old's jack-o'-lantern. After much weighing and measuring, an ideal size was arrived at and from that time on each child who brought his pumpkin to school took pride in weighing and measuring it to show that in his selection he had made a good and wise choice.

Thanksgiving. The observance of Thanksgiving as a historical holiday is a frequently debated and much mooted question among kindergarten teachers. Even though the significance of the first Thanksgiving is beyond the understanding of the five-year-old child, the story of the Pilgrims and their first Thanksgiving is one that always appeals. When analyzed, it is found to have all the elements of a good story for young children. A small boy's comment at the conclusion of the telling of the story assures one that the story belongs in the kindergarten program. "That," said the small boy, "was a good story. I bee-d so still, I didn't want to miss a word."

A work unit on either farm or home will dovetail very nicely into Thanksgiving plans. In the first place, the experience of the children in their work and play centered around the home has not been too unlike that of the Pilgrims who struggled to set up their homes and gave thought to the fruits of the harvest. In the second place, the

further consideration of foods as products of nature helps to show upon what the Pilgrims were relying. In the third place, the collecting of food and sharing it with people whose larders are not so full as necessity demands is quite comparable to the Thanksgiving Day on which the Pilgrims shared their somewhat meager "bounties" of nature with their Indian neighbors.

Christmas. Thanksgiving is no sooner past than Christmas is near. In fact the kindergarten teacher may have to make a struggle to keep Christmas interests down while Thanksgiving is being considered. Christmas, as a holiday, is not so simply handled as is Thanksgiving Day. If the approach to Christmas is not carefully planned in advance, the teacher finds herself involved in a succession of trying situations. Whether Christmas is approached from the religious or the purely secular side, one is faced with quandaries. Probably no other country in the world has a greater variety of ways of celebrating this particular day or season. Since, however, Christmas is, in its origin, based upon the story of the birth of the Christ Child, it seems only fitting to start the Christmas unit of work with the story of the first Christmas. The story need not be told with an air or even an implication of religious dogmatism,¹ but it is, whether we will or not, an account of the first Christmas, and all of the many customs and traditions associated with the Christmas season have grown out of this story.

The Santa Claus, or the receiving side of Christmas, leads the teacher into a maze of situations which must be handled with the greatest of care. If parents have instilled the idea that Santa Claus is real, then it is not right for the kindergarten teacher to contradict their story. On the other hand, there are not many kindergarten teachers who are willing to further this concept of a mythical personality. Christmas, however, stripped of its mystery and folklore, would lose half its charm. How, then, is the kindergarten teacher to proceed in order to retain the charm of the mystery and folklore of Christmas

¹ The teacher must always keep in mind the fact that there are children who do not have Christmas in their homes. Children of Jewish or Mohammedan, Buddhist, or other religions ought to have an opportunity to tell of the times when they give gifts. Almost every religion has some day or days in their year which are set aside, as is Christmas, for the thought of others. The Jewish children may tell of their Festival of Lights or Chanukah, while Turkish children of Moslem faith would delight to tell of their Candy Day, or perhaps of their Spare-a-Sheep Day.

without encouraging the belief that Santa Claus is a real person? It may be done by telling the children that in different parts of the world children have different ways of receiving their gifts. The German children play that the Weihnachtsmann brings gifts to their tree; the French children play that Bonhomme Noël goes about distributing the gifts; while the Swedish children go to sleep on Christmas Eve dreaming of all the lovely things which the Yulctumnte will bring. After a consideration of these various traditions, the question may then be put: "Who do we pretend brings gifts to us at Christmas?" The answer will of course be, "Santa Claus." After it has once been stated by teacher and group alike that "we pretend" that Santa Claus brings our Christmas gifts, then one may dramatize and play Santa Claus as much as one likes without deliberately teaching something which must one day be unlearned.

The kindergarten Christmas is usually the first Christmas in which the child has definitely taken a personal part in the giving side. An early discussion of gifts for mothers and fathers will probably result in such suggestions as balls, wagons, dolls, etc. It is always interesting to see a group of five-year-olds as they reach a dawning consciousness of the fact that suitable gifts must be those which will be enjoyed not by the donor but by the recipient. Often the children suggest articles which would be far beyond their powers to make or obtain. A radio or a necktie or shoes are not infrequently named. When after looking about at home and putting a few searching questions to father and mother, the children next discuss gifts, some novel but practical and interesting suggestions are made. One such list was as follows:

FOR FATHER

- A can for nails (coffee can painted and decorated)
- An ash tray (clay dish painted)
- A spindle (clay or wooden base with long nail run through it and standing upright)
- A book to write things in (small book of blank pages with painted cover design)
- A footstool (wooden stool with cloth upholstery)
- A pencil holder (block of clay, painted and decorated, in which holes have been made to stand pencils)
- A tool to wash windows (a wooden T with a crosspiece covered with tire tubing)

FOR MOTHER

- A tray (made of wood and painted)
- A candleholder and candles (clay or wood holders, painted; hand-dipped candles made of melted paraffin colored with paint powder)
- A pocketbook (oilcloth coin purse stitched with yarn)
- Doilies (paper set, designed and colored)
- A little table (end table of wood)
- A dish for nuts (clay dish painted)
- Something to set plants on (wooden square 4" x 4", wooden beads fastened on with nails used for legs)
- A box for buttons (individual ice-cream containers—decorated with wallpaper, button knob for cover)

Preparation for the kindergarten Christmas must be begun in time to prevent a rush just at the time when both teachers and children ought to be free to enjoy the festivities. It is usually not too early to begin the actual work on Christmas gifts immediately after Thanksgiving. If a program or a party is to be given at Christmas time, it is wise to have it simply the outgrowth of the work and play of preceding weeks. A stilted program with verses and dances practiced and drilled for the occasion does not have nearly the charm or the wholesomeness which may be found in the program which grows directly out of the many recent song, game, and rhythm experiences common to the group. Since many parents will visit the kindergarten at no other time, the Christmas party should give them an idea of the real kindergarten. They will enjoy watching the children at their more or less routine work on the last day before the holidays, stringing the popcorn and bread and cranberries for the birds' Christmas tree; tying the peanuts to the squirrels' Christmas tree; and making the doilies and napkins, or frosting the cookies and setting the tables, for their own Christmas party. While the last and perhaps surprising touches are being added by an assistant, the parents and children alike may enjoy listening to a story told by the teacher, or short stories or rhymes told by the children. After the party proper (something as simple as a glass of fruit juice or milk and a cookie), then the children might gather by the piano or lighted Christmas tree for a period of songs and rhythms and games or a bit of dramatization. If each child is supplied with a large paper bag in which he can carry home his gifts and party favors safely, the day has reasonable assurance of coming to a happy close.

The Winter Term. After the holiday season, the group comes together with renewed but undirected interests. As one youngster put it upon coming back to the kindergarten after the holidays, "Well, we have studied about homes, we have studied about farms, we have studied about Thanksgiving, we have worked hard for Christmas—now I wonder what we had better do?"

The program at this time of the year will depend somewhat upon the climate, and upon current city or neighborhood happenings. If there is a great deal of snow on the ground, a unit of work may be centered around the care and feeding of the birds; or, if the snow is not too dry, the building of a snow house may well lead to a consideration of the many ways in which people adapt their environment to their needs.

If the city has a winter circus, then the interest of the kindergarten group is often centered around its coming and around the dramatization of the performance and the study of the circus animals. It is interesting to note, however, that invariably when five-year-olds come from a circus performance they are impressed not so much by the animals and the feats of skill exhibited by the acrobats, as they are by the clowns. Children are often surprised to learn that clowns are ordinary men who have chosen clowning as a vocation. Youngsters are further surprised and impressed to know that much practice and experience is necessary before some of the clowns, particularly those who do acrobatic stunts, can enter the circus. This interest in a specific vocation sometimes leads to a consideration of choices of occupation and the need which exists in our society for a tremendous variety of workers. Sometimes the arrival and the departure of the circus leads to an interest in modes of travel and transportation. Again it may lead to an interest in wild animals and creatures of the zoo.

Valentine's Day. Valentine's Day, like Halloween, will probably interrupt a major unit of work; but, like Halloween, it has its justification in the joy derived by the children. Moreover, there is connected with Valentine's Day a spirit of giving of which not even Christmas itself can boast. Valentines can be made so easily and purchased so cheaply that children are allowed to be lavish with their presentation whereas parents often feel the necessity of curbing the child's desire for extravagant giving at Christmas. The kindergarten often has a

valentine box into which the children put the valentines which they make for one another. The school does not usually encourage bringing valentines from home, but in many cases the pattern set by older brothers or sisters is reflected in the kindergarten. It is not a bad scheme for the teacher to have a few extra valentines tucked in her pocket or between the covers of a book so that provision will be made for each child to receive at least the one valentine the teacher puts in the box for him and one or two others. It is a good idea to supply each child with a large envelope and to ask each child as he looks at his valentine to slip it into his envelope. If the teacher then volunteers to staple the envelope so the valentines won't fall out on the way home, hurtful comparisons of numbers of valentines received can almost completely be avoided. This will avoid that dreadful moment when the gay little butterfly of the group lifts her nose and says to her neighbor, "Is that all you got? Just look at all I have!"

National Holidays. The birthdays of Abraham Lincoln and George Washington are holidays whose significance it is difficult for the kindergarten child to understand. The following story may serve to illustrate the child's inability to grasp anything of the significance of such days. A kindergarten teacher in attempting to explain the reason for the forthcoming holiday went into some detail about the life and death of our first President, and concluded by saying "and tomorrow is the birthday of George Washington." A somewhat cynical chap in the group said, "Humph, I don't see how he could have a birthday if he isn't even living." Before the teacher could explain, she saw that her efforts would be futile, for a girl said, "Sist! Of course he could have a birthday—don't you suppose someone else could eat his ice cream for him?"

The displaying of the flag, which is for young children the real celebration of these two holidays, is a concrete experience around which the kindergarten teacher may build. Beyond the desire to give our children an honest respect for the flag of their country, we have in the display of flags an excellent opportunity to present the idea that there are many flags in the world and that the children of various lands have special days and occasions on which they display their particular flags. If the children have had, in kindergarten, access to many books, they will enjoy associating the flags of the various countries



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The Out-of-Doors Bids for Attention.

with the characters in the books. "Ameliar Anne" and "Christopher Robin" would put up an English flag on their holidays, "Pelle" and "Olle" would hang up a Swedish flag, "Jean" and "Pierre" would wave a French flag, and "Pancho" would unfurl a Mexican flag. Many kindergarten children are interested in flags, and are never much happier than when they are making or planning for themselves or for the decoration of the kindergarten a series of flags painted on cloth or paper or colored with crayons.

The long weeks between the February holidays and the coming of spring offer time for excursions out of which plans centered around community interests may evolve. Often an interest centered around the post office seems to grow directly out of valentine activities. The store and the storekeeper, the fire station and the fireman, traffic and the policeman, any of these and many more interests may well be brought up for consideration at this time.

Easter. And then comes Easter. The Easter season, like Christmas, has its maze of religious beliefs and folk legends. The Easter Bunny, like Santa Claus, brings to the kindergarten teacher the delicate problem of manipulating her program so that the children may retain all the fun and joy of play centered about the Easter Bunny without believing implicitly in his existence. The old German story of "Mr. Easter Rabbit"* helps the children to understand the secret of the Easter Rabbit; yet it does not rob them of the joy of joining heartily into the business of playing Easter Bunny.

From the spiritual side, Easter may be considered simply as a time of new life and new hope. The whole world of nature is beginning to stir itself once again, and those tiny seed packets which the children observed with such amazement and wonder in the fall are now about to burst into life. Within the kindergarten, one senses evidence of new life. The moth may be felt stirring in its cocoon; the polliwogs may be seen "sprouting" legs; and even the baby chicks may be heard and seen as they peck their way through the shell. Everywhere, if attention is but called to it, one sees evidence of new life.

The Spring Term. Following Easter, spring comes quickly.¹ The birds have begun to return, trees are green again, flowers are blooming, the

* See reference 5, page 217.

¹ This applies, of course, only to the Northern states. The local climate will naturally determine the time for considering the seasonal changes



Gross—State College, Cape Girardeau, Mo.

Transplanting Tomato Plants to Take Home

farmer is sowing his seeds, and gardening time has arrived. Plans are laid for the kindergarten garden. Seeds and tools are brought from home. The ground is turned and raked, and raked and turned; fertilizer is worked into the soil. At length the planting is done, and signs are made and posted to designate the fruit, flower, or vegetable which may be expected to appear in each row.

Sometimes the garden seems to be a long time in starting; but during those weeks of waiting, there is much of interest in the environment which seems to call for attention. Perhaps new construction work that was held up by the ice and snow of the winter is under way; the neighborhood florist may have some particularly interesting developments in his greenhouses; a planned trip to the country may provide opportunities for the children to observe the newly seeded fields and to see the colts, calves, baby pigs, and lambs with their mothers. It just might happen that a trip could be planned so that the children would be at the farm on a day when the old sheep were being sheared. In that case, a whole new area of interests would be opened to the children. In any event, once spring comes, the outside world will be begging the children to come out to see what of newness it has to offer. Spring birds, spring blossoms, and spring life of all kinds will be beckoning for attention.

Sometimes in the spring of the year it is pleasant to do as the children did "when my big brother and sister were in kindergarten" or as did the English people of long ago. It is pleasant to set up and make preparations for a Maypole dance. The undertaking is much more worth while if the children can actually make their own streamers for the pole. One reasonably satisfactory method seems to be that of making streamers, chain fashion, from strips of colored paper. To some the making of paper chains seems little more than an "occupation" carried over from the old Froebelian kindergartens of the 19th century. To make paper chains *per se* would be exactly that. But for the group to be faced with the problem of selecting a material from which streamers could be made, to try to think of materials available in the kindergarten and to try to think of a material and construction which would stand some strain and stretch, and further to think of a material from which each child could fashion his own streamer—all that does indeed offer a challenge. How very different it is for the group to make an effort to solve this problem and to have each child



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Watching the Farmer Shear His Sheep

working on his own paper chain of a chosen color—from giving each child strips of paper and telling him to sit down and paste paper rings together!

The Maypole dance itself is usually most simple. Often it is little more than the opportunity it provides for the children, chains in hand, to walk, clockwise and counter-clockwise, round the pole. Sometimes the rhythm of the music is such that running, skipping, or side sliding is suggested. Simple as it all is, the experience gives to the group a feeling of co-operation and unity which no other undertaking throughout the year has been able so well to provide.

As vacation time draws near, vacation plans will be in the minds of most of the group. The prospect of a summer at the lake or the beach may lead to an interest in boats. Travel of one kind or another may well center the interests of the group around the study of trains, busses, airplanes, or other modes of travel.

As the year comes to a close late in May or early in June, a final bit of business may be that of getting the room in readiness for the children who will be entering the kindergarten in the fall. Books must be mended, blocks must be scrubbed and packed away, lockers cleaned, pictures removed, and the playhouse dismantled. And last of all as a fitting ending to a busy school year, plans may be laid for a farewell picnic. The garden will no doubt furnish such things as lettuce, carrots, and radishes for sandwiches; the bees may have supplied honey in a sufficient quantity for tarts, and butter may be made from the cream which the children bring from home. The tarts and bread and ice cream may be bought with the money received from the sale of the chickens.

With the kindergarten picnic, the kindergarten year will be brought to a close. It is to be hoped that through this year of playing, planning, observing, executing, exploring, testing, and learning, each individual in the group will have realized many of his ever-increasing motor and intellectual potentialities, and that he will have been able to establish within himself an emotional control which will make his conduct socially desirable.

2. Developing an Interest

Techniques. It has been said by some that it is better not to set down on paper an outline for any given interest to be developed with young

children. The reason obviously is that an outline, once set down, tends to make the teacher cling too closely to it. The teacher who clings too closely to an outline is very apt to be oblivious to the many unpredictable but often valuable concomitants inherent in the pursuing of an interest. She is also inclined to lose sight of that very important factor which for want of a better name we might call "the factor of human variability." But even though the teacher does not set down her outline in "lesson plan" fashion, that does not mean that she will not have thought an interest through before developing it with the children.

For the purpose of helping the teacher to think her problem through, the following outline in the form of a summary has been set up. It will be noted that it has been set up as though the interest had already been developed. It has been purposely set up in that fashion in order that the teacher may be encouraged to think of her plans as involving both the interest and the children. Too often, teacher planning concerns itself more with interests and ideas than with children!

OUTLINE FOR THE SUMMARY OF A DEVELOPED INTEREST

General Area of Interest

Specific area

Factors Considered in Relation to the Pursuit of the Interest

Group composition

How many children in the group?

What is the ratio of girls to boys?

How long have the group been together?

What is the chronological age range?

What is the apparent level and range of ability?

What is the socio-economic background of the group?

Initiation and Duration of the Interest

From what did the interest arise?

How was it stimulated?

What was the duration of the interest?

Date initiated?

Apparent peak of interest?

Date terminated?

Exploring the Interest

Sources of shared information

Verbally presented information given either by the children or the teacher

Specific sources: previous experience, firsthand observations made as a result of present interest, parents or other adults, experts or authorities, newspaper pictures or articles, magazine pictures or articles, books, movies, radio programs, or other sources

Materials brought in by either the children or the teacher

Models, samples, pictures, books, raw materials, etc.

Excursions taken by the group

Films and slides seen by the group

Science experiments observed or participated in by the group

Radio programs, records, etc., enjoyed by the group

How did the interest find expression in the various phases of the daily activities?

Stories, rhythms, music appreciation, games, dramatizations, poetry, songs, creative songs, free play, conversations

How did the interest find expression through the use of materials?

Wood, clay, paper, crayon, paint, block, etc.

Culmination of the Interest

When, if ever, were summaries or check-ups made on learnings?

How?

Was there any culminating activity? If so, of what nature?

How did the interest terminate or blend into a new interest?

Evaluation of the Interest

How many children made contributions in one way or another?

How closely have the new learnings been related to the children's living?

What were the significant and desirable outcomes in both attitudes and understandings?

Were there any definitely undesirable outcomes?

How would you evaluate the experience in terms of teacher's time? children's time? output of teacher energy? output of children's energy? teacher interest and enthusiasm? child interest and enthusiasm?

Would another group of kindergarten children be likely to pursue the same interest in another year?

What suggestion do you have for making the pursuit of the interest more profitable?

At the conclusion of an interest, it would be distinctly desirable for the teacher to fill in, in outline, the developed interest in some detail. This will show how circumstances and the human elements in the kindergarten have affected the total experience.

In the following paragraphs there is presented a running account of the way in which an interest arose in a particular kindergarten, and

the manner in which it was developed. It will be noted that in this case the post-office interest was really months in developing, though the actual period during which the post office was the chief interest of the group was not more than two or three weeks in duration.

An Account of a Post-Office Interest. There were twenty-four children in the group: 14 boys and 10 girls. At the termination of the interest, the ages ranged from five years and ten months to six years and three months. The median IQ of the group was approximately 120, and the intelligence scores ranged from 108 to 150. The majority of the children were from families whose fathers were either professional men or business executives. The children had been in kindergarten almost a complete year; they had been enrolled in February of the preceding year and as their own dictated letter indicates, they were about to go into the first grade. The group attended kindergarten from eight-thirty until noon on five mornings of the week. Working with the group there was a head teacher, an assistant, and an occasional student teacher.

You say, "How very different that all is from many kindergartens! Why I know a kindergarten where there are fifty children enrolled in one group, and a single teacher is responsible for the whole program. I know that the socio-economic background of the group is very different from that represented here, and I am sure the median IQ of the group would not be more than 105 and the range of IQ's would probably be from a low of 80 to a high of 110. And then, too, these children I'm thinking of are only in kindergarten two hours a day. In fact, sometimes it seems that they scarcely get there before it is time for them to go home."

I say, "How quick you are to appreciate those first factors which must be taken into consideration in developing an interest! It would indeed be both foolish and futile for the group you described to be spending time on the exploration of any area of interest like the post office. In fact, in most instances this area might better be left until the children are in the first, second, or even third grade. It is entirely probable that no succeeding group in the same kindergarten would be concerned with developing the post-office interest; but if you will follow through the account as presented below it will be obvious that the experience of this particular group led quite naturally to the interest in the post office. From this point on as you read about the development of the post-office interest, try to see how well you can

make the details of the account fit into the summary of a developed interest previously outlined in this chapter."

One day late in the fall the children went to make their morning inspection of the glass jar in which they kept their caterpillar. Lo! the caterpillar was missing. They made a careful search about the room and then came together in a group to decide just what ought to be done. One child suggested that perhaps the janitor might have seen the caterpillar when he was sweeping the floor. Two children went down to ask him, but they returned shortly to report that they could not find Mr. C—. After further discussion the group decided that it would be well to write him a letter. A note written down by the teacher as dictated by the children read:

Dear Mr. C_____

We have lost our caterpillar. He had black and brownish yellow hairs on him. Have you seen him?

The children as a group went down to the janitor's room and pinned the letter to his door. One child objected quite strenuously to such a way of sending a letter. Questions from the teacher brought to light the fact that letters must be put in mailboxes.

During the next few work periods, the objector and his particular friend labored over their self-assigned task of making a mailbox which would stand up "like a real mailbox."

When the "mailbox" was finally finished and placed outside the kindergarten door, the lack of letters to be put in the mailbox became evident. Further letters were therefore written to the janitor while others were directed to the principal and the afternoon kindergarten children. The recipients of the letters had the kindness and the courtesy to make prompt replies, and for a period of several weeks letter writing was one of the chief interests of the kindergarten.

Although the single mailbox appeared to be quite satisfactory for some time, a second box was added later, so that one could be used for outgoing mail and the other for incoming mail. The correspondence continued to flourish, with the janitor as the most faithful correspondent.

Finally, but not until after Christmas, a child objected because the

individuals who received mail took their letters right out of the same box into which the sender had put them. Obviously that was not the way real letters were sent. Christmas cards didn't come that way. At this point the book called *Billy's Letter** was consulted, and then it was that the post office became for a few weeks the center of the group interest.

Arrangements were made with the postmaster in the district station for a visit by the children. A guide escorted the children and allowed them to investigate and question to their hearts' content. In the light of the information they had already gathered from their own kindergarten discussions, the group had many intelligent questions to put to the guide.

Their attention was first called to a truck bringing mail from the railroad station. The truck backed up to the door; then, after the doors of the truck as well as those of the post office had been unlocked, the heavy, padlocked bags were brought in. The children saw the mail being sorted according to the district to which it was addressed, and later re-sorted according to the block within the district.

Next the children watched the letters, packages, and papers being dropped through the slots from the front part of the post office. They watched the mail being canceled and sorted and dropped into the open bags which hung on frames. The postmaster showed the children how, when all the mail had been made up for a certain train, the bag was taken off the frame and locked before it was carried to the truck which would take it to the station. The children were particularly impressed with the "nixie" box in which unclaimed letters are kept before they are sent to the dead-letter office. Before returning to the kindergarten, the group stopped in the front part of the post office to buy various kinds of stamps and stamped envelopes.

When the children were reassembled in the kindergarten, they asked to have the book *Billy's Letter* read to them again. They listened with renewed interest; not a detail of the account escaped their attention. Bobby suggested that he was going to "write" a letter and mail it at the corner to the teacher to see if the mailman would get it and take it to the post office and then bring it to the school. The group could scarcely wait to see if the letter would really arrive, and

* See ref 78, p 220

when it did arrive their elation was almost beyond bounds because it had been canceled with the "stamper thing" down at the post office.

Plans were soon under way for making a post office in the kindergarten. The Hill Floor Blocks were used; roping, stretched back and forth across an opening, made the barred window. Appropriate signs were made for the various windows and slots. The "nixie" box had a conspicuous place in the setup. Pigeonholes, the large sorting table, and the mail bags were all reproduced. A padlock for the bags, a rubber stamp and an inkpad, as well as old advertising letters and trading stamps were brought in from home. The postman who delivered mail to the school was invited to inspect the setup. His hat and bag and the bands on his sleeve were carefully examined and later reproduced by individuals in the group.

Calendar and magazine pictures showing mail cars and mail deliveries were brought in. Many of the pictures painted and drawn during these weeks reflected the current interest in the mail services. In dramatic play, airplane pilots were busy picking up and dropping off mailbags. Through trains zoomed along the tracks, and men snatched the mailbags from their frames or dropped them at the stations. Trucks were busy going about the city collecting mail from the big locked boxes on the corners and the "neighborhood mailman himself" frequently made the rounds of the play groups. Not infrequently there was considerable discussion as to who was to be behind the window of the post office to sell the stamps and weigh the packages.

There was renewed interest in letter writing. Upon every possible occasion, the children dictated and sent out letters. Sometimes they sent out picture letters which they themselves drew. Often they signed their own letters and sometimes they ventured to print the letters following the typed form. The letters were always typed and shown to the children for their inspection, before being mailed out. When the year ended the children had, in their copies of letters, a record of many of the interesting things which they had done. The letters, read back to the children on the last day of kindergarten, proved most enjoyable.

The following is a copy of one of the letters dictated by the children. It describes their trip to the post office.

102 Pattee Hall,
University of Minnesota
Minneapolis, Minnesota

Dear Afternoon Children:

You can play in our Post Office—the one we made out of blocks—after we go to First Grade.

Yesterday we went to a real Post Office at Central. The postman told us that we could go into the part where they work.

We saw the pigeonholes where they put the letters for the mailmen. Each mailman has a steel pocket, and he sorts the mail when he comes to get his mail.

We rode on the baggage truck. A man pushed us. We saw a mail truck at the back door and a man said, "Let's stamp these children and deliver them to some people."

We looked at the scales. We saw a man weighing a parcel-post package.

We saw the big mailbags and we saw the locks that they lock them with.

We saw the canceling machine.

We saw the "nixie" box and we saw an airplane envelope.

We went out into the other part of the post office where they buy stamps. We bought a 1-cent stamp and a 3-cent stamp and an air-mail stamp and a stamped envelope with a new stamp on it and postal cards and special delivery stamps.

We went back to kindergarten. We are making a mail truck. We hope we can get it finished. Billy is making an airplane for mail. We hope it gets done. Margaret, Jean, Howe, and Ramona are making a train.

Sincerely yours,
THE MORNING KINDERGARTEN
(Signatures followed)

STORIES, POETRY, RHYTHMS, SONGS, AND GAMES USED
IN CONNECTION WITH THE EXPLORATION
OF THE POST-OFFICE INTEREST*

Stories

Billy's Letter

The Postman

Corally Crothers

Poetry

"The Postman"

Rhythms

Train

* References for literature, music, games will be found in Chapters XII-XV.

"The Song of the Train"—*Musical Experiences of Little Children*

"The Train"—*Rhythmic Games and Dances*

Airplane

"The Acroplane"—*Rhythmic Play*

"The Airplane"—*Rhythmic Games and Dances*

Delivering Mail

"In the Park"—*Rhythm and Action with Music for the Piano*

Games

Postman

Delivering mail (a version of "Drop the Handkerchief")

Songs

"The Postman"—*The American Singer, Book One*

"The Postman"—*Songs for the Little Child*

"The Engine"—*Songs for the Little Child*

"The Postman"—*The Progressive Music Series—Teacher's Manual, Vol. I*

In spite of the fact that the on-going group had granted permission and had really extended a most cordial invitation to the on-coming morning group to play in the post office, yet the interest in the post office terminated directly when the older group went into the first grade. The post office had little meaning to the new group, and it was quickly dismantled so that the blocks might be used for other and from their point of view more interesting purposes.

Preparing the Child for First Grade. No plan for a kindergarten year can be complete unless it recognizes the necessity for giving the children a good preparation for the school work which they will meet in the next year and in years to come. Gertrude Hildreth,* in making a few generalizations on readiness for learning, says: "A broad preparatory program is more successful than narrow techniques in developing readiness for learning. The activity program . . . with emphasis on functional learning and meaningful experiences, is the best preparation for later progress in learning skills. The activity program affords children natural opportunity for language development, manipulating materials, sensing meanings and relationships, developing work habits, and attaining social maturity."

There is some statistical evidence to show that children who have had a year of kindergarten experience may be expected to make better

* Quoted by permission from *Readiness for Learning*, p. 6. See reference at end of chapter.

records in first grade than do those children who enter first grade straight from home. The advantage of the kindergarten graduates lies not in any provable increase in intellectual status, but in the fact that the child has had an opportunity to become accustomed to working with a group, to conforming to school rules, to accepting criticisms and suggestions, to expressing himself, and to solving problems for himself. Certain kindergarten experiences are planned with the thought of facilitating the child's work in the more formal school subjects which he will meet during the next year or two.

Reading. Adults find that they can read with greater ease and more speed if the general field of subject matter and the vocabulary of the text are reasonably familiar. The same situation exists when the child is beginning to learn to read. The kindergarten recognizes this and attempts to give the child many experiences, both group and individual, which will broaden his interests and add to his fund of information and vocabulary, thus building up for him a reading background. By having his attention called to careful enunciation and pronunciation in the kindergarten, the child learns to hear the exact sounds of the words which he will later learn to read.

The kindergarten child learns to recognize the importance and the function of the printed word not only by having stories read to him, but also through his experience in dictating letters, identifying labels, recognizing common street signs, and attempting to print his own name. Through the library and story hour, he comes to have an interest in books and a regard for their care and handling. By turning the pages and following the picture stories in the book, he learns the mechanics of turning pages, and he learns in which part of the book a story begins. The pictorial indexes found in some of our story and song books help the child to understand the significance of the index; and attempting to find the story or song by referring to the index gives the child practice in interpreting printed symbols. By watching the teacher as she reads and by having the fact specifically called to his attention he learns that the eye movement for reading carries through from left to right. This eye movement he practices in his own "play reading." Occasionally the kindergarten teacher will run her finger or place a marker under the title of a familiar story, or she will pause to show the children a printed refrain rather than reading it to

them herself. Though reading proper has little or no place in the kindergarten, yet the kindergarten teacher tries to be ever alert to the many opportunities which may be found in the program to pave the way for the actual experience of learning to read. Reading readiness and not reading ability is the concern of the kindergarten teacher.

Arithmetic. Through many concrete and meaningful experiences, the kindergarten child is building a background for his later work in arithmetic. He often has occasion to count objects. If he is setting the table or pouring the orange juice he must count out the number of chairs or the number of glasses which will be needed. In stringing beads or making paper chains, the children invariably measure and count as they progress. Sometimes the children stand about in a circle and a child is asked to count the children in the circle. A second and a third child counting the same group help to verify the answer. Certain games necessitate the "counting out" of children. Arithmetical terms and ideas such as *add, take away, more, less, equal, longer, shorter, half, whole, etc.*, the kindergarten child comes to know and use with perfect understanding. Written numbers are recognized by the kindergarten child as meaningful symbols because he has followed the thermometer up and down, or has marked the calendar and followed the passing days awaiting the arrival of the baby chicks. Special page numbers he has either sought through the index or he has perhaps marked with a slip of paper. Simple addition and subtraction problems not infrequently come within the experience of the kindergarten child. Scorekeeping for such games as "Ball in the Basket" or "Block Relay" necessitates the actual writing down and totaling of the points made by the competitors. If the scorekeeper overcalculates his total score, he may be asked to "take away" one or two points. He can then check his subtraction by totaling his figures once more.

Writing. Any of the many activities in the kindergarten such as drawing, painting, modeling, cutting, and pasting, which involve the coordination of eye and hand movement, tend to make the business of learning to write more simple. The child who is helped to hold his crayon correctly or who is taught to use the side of the chalk when marking on the blackboard is learning some of the fundamentals of writing. Most or at least many children learn to print their own names

while they are in kindergarten, and some even venture to make signs for the kindergarten store, airport, garden, or what not. It would simplify the child's learning problem if the home and the school would get together on the type of printing which the child uses for "copy." Often the child has learned to print his name in capitals at home and when he comes to kindergarten and sees his name in manuscript or small-case letters he frequently disclaims it entirely. Since the child will not use a series of capitals either in his early reading or later in his writing experience, it would seem wise then to help him from the beginning to use manuscript letters. The scribble writing which four- and five-year-old children attempt often bears an amazing likeness to the script of adults, and the movement which they use in achieving the effect is not unlike the writing technique taught in grade school.

Music. Most kindergartens have daily music periods as well as incidental music throughout the day. These musical experiences not only afford the child immediate joy and satisfaction, but they also provide opportunities for developing music skills and music appreciation. The kindergarten child has frequent opportunities to listen carefully and to respond freely to the rhythm and mood of music. He has practice in matching tones, in singing phrases and picking out tunes on instruments. By the end of the year he has acquired a nice repertoire of songs and rhythmic patterns. Further, he has begun to appreciate and enjoy good folk music, simple classical and good modern music. In short, the kindergarten has helped the child to build a good foundation for his further study and enjoyment of music.

3. Preparation for the First Grade

Promotion from Kindergarten to the First Grade. Promotion from kindergarten to the first grade once was, and still is to a great extent, based almost entirely upon the child's chronological age. In many schools, if the child has attained or is within a few weeks of the age of six years, then it is assumed that he is ready to learn to read. Little thought is given in such a school to the fact that the child's mental age, his physical development, his health record, his degree of emotional stability and his social adaptability may all greatly influence the ease with which reading is acquired.

In view of the fact that kindergarten attendance is not compulsory, it will probably be some time before any kindergarten report on the child's development and behavior can definitely defer his entrance into the first grade. To detain the child in the kindergarten on the basis of observed kindergarten behavior, ability, and achievement, while permitting other children of the same age but with no kindergarten experience to enter the first grade is, from the lay point of view, to penalize the child for attending kindergarten. On the other hand, to enroll children in the first grade purely on the basis of chronological age and then to fail fifteen or twenty-five per cent solely on the basis of their difficulties in identifying black symbols on a white page is, from the point of view of those concerned with the psychology of education, a sad waste of both teacher and child time, and a procedure which may result in grave personality difficulties on the part of the child.

In recent years efforts have been made to find some scientific measure of the child's ability to cope with the reading situation of the first grade. A variety of reading-readiness tests* have been worked out, and some have been well standardized. The records of many schools show that success in first grade depends upon chronological age, mental age or IQ, and also upon the child's social and emotional adjustment and upon the home environment. Table IV is based upon the material of Elizabeth B. Bigelow¹ and should help teachers and parents in solving the problem of date of promotion to first grade.

It will be noted that in the foregoing summary frequent reference has been made to the fact that such personality factors as social and emotional maturity should be considered along with the mental and chronological age. There are at the present time no reliable measures of personality traits. Fortunately the extreme cases where personality traits or social and emotional maturity are likely to interfere greatly with the child's progress are not difficult to recognize.

If the child is given to severe uncontrolled outbursts of temper, if he is overcome easily with embarrassment, if he cannot work and play without constant friction with other children, if he is too dependent upon other children or adults, or if he is excitable and tense under

* See bibliography of tests in Appendix.

¹ Bigelow, E. B., "School Progress of Under-Aged Children," *Elementary School Journal*, 1934, 35:196

TABLE IV
Prediction of Degree of Success in First Grade

Chronological Age	IQ	Mental Age	Probability of Success in First Grade
Below 6 yr.	Below 110	Below 6 yr.	Small chance of success. Better postpone entrance
Below 6 yr.	110-119	6 yr. 0 mo. to 6 yr. 7 mo.	Fair chance of success. Postpone entrance if any question of social, emotional, or physical immaturity, or if home conditions are unfavorable
Below 6 yr.		6 yr. 8 mo. or 6 yr. 9 mo.	A good chance.
Below 6 yr.	120 or over	6 yr. 10 mo. or over	High probability of success, but personality factors must be taken into consideration
6 yr. 0 mo. to 6 yr. 4 mo.	Below 100	Below 6 yr.	Practically no chance. Better postpone entrance.
6 yr. 0 mo. to 6 yr. 4 mo.	100-109	6 yr. to 6 yr. 3 mo.	Fair chance of success. Postpone entrance if any question of social, emotional, or physical immaturity, or if home conditions are unfavorable
6 yr. 0 mo. to 6 yr. 4 mo.	110 or over		Almost certain to succeed

the slightest strain, then he will probably strike further difficulties in first grade.

The parents' attitude toward the child's promotion¹ ought to be given careful consideration. If, for example, the parents will be completely upset by having the child remain in the kindergarten or if they are going to make life miserable for the child because he "failed to pass," then these factors must be considered in their bearing upon the child's adjustment to school.

Promotion from the kindergarten when removed from the basis of simple chronological age becomes a complex one. The teacher who is fortunate enough to have in her files the record of each child's mental and physical rating and who is able to give or have given to each child a reading-readiness test, is relieved of some of the responsibility in solving the problem; but she must not rely too much on these meas-

¹ Olson, Willard C., "Parents Request an Extra Promotion," *Childhood Education*, 1941, September 18:24-29

ues alone. She must at all times have an intelligent curiosity about her children so that she may weigh with a fair degree of accuracy those traits, characteristics, and conditions which cannot be scientifically measured. The most understanding teachers will be able to give the immature child and his parents the feeling that another year or half year in kindergarten will be well spent if it means that during the year he will be steadily developing and that at the end of the year he will be able to compete satisfactorily with the other children who will be entering first grade with him.

Further Guides to Promotion. It would probably be helpful to all of us in planning for the child's best good if we could have before us a picture of the child's total growth as plotted on an organismic* or some other growth chart. Practically it is not now possible for most of us to have such data available; but if we might have it, it is conceivable that we could more clearly appreciate the diversity displayed in the development of individual children. Placement and expectancy would then be in terms of many clear-cut factors rather than simply in terms of chronological age and seeming or tested intelligence. If such material were available, it is quite possible that schools would be happier places for all. May the research people continue to provide the teachers with more and more working generalizations!

QUESTIONS AND PROBLEMS

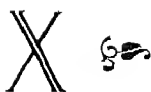
1. Outline one of the following subjects for a unit of work:
The Farm
The Home
The Grocery Store
Transportation
2. Would you develop the same interests year after year? Why?
3. What leads for activity interests might you find in the following statements made by the children?
 - a. "Next summer my daddy and my mother and I are going to England. We are going on a great big boat."
 - b. "We went out to the lake yesterday and my mother dug down under the old dry leaves and we found some little blue flowers just starting to grow. They were all fuzzy looking."

* See Olson reference at end of chapter.

4. List all the ways in which the last month in kindergarten would differ from the first month, giving reasons for differences.

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The Work Period

THE work period in the modern kindergarten:

1. Offers frequent opportunities for the child to meet concrete, problem-solving situations.
2. Helps the child to acquire the ability to plan and carry out individual or group projects.
3. Encourages the child to complete a task once begun.
4. Acquaints the child with the various materials available for self-expression.
5. Offers an opportunity for the child to learn to work harmoniously with others, sharing ideas and materials
6. Offers the child opportunities to engage in activities which will develop him physically.
7. Helps to establish habits of orderliness in the care of materials and the room in general.
8. Affords the child the joy and satisfaction which experimentation and achievement bring.

Types of Kindergarten Work Periods. There are three quite distinct types of work periods found in the kindergartens of today. While this chapter is to be concerned chiefly with but one of these types, yet it may not be unwise to mention and give some notion of the techniques of the first two.

The first, the directed-lesson type, belongs really to another kindergarten age, but it is still used in some kindergartens today. In fact, one might say that under some conditions and upon some occasions it has some desirable points. The directed lesson is planned in detail and in advance by the teacher. When the children sit down at their tables they are expected to await the arrival both of the materials with which

they are to work and of the instructions for handling the materials. The group proceeds to carry out, step by step, the directions given by the teacher. Much help usually has to be given by the teacher to the less able children. This type of work period is allotted from 15 to 30 minutes in the program of the day, and is frequently accompanied by tears!

The second type of work period, the semi-directed and semi-creative, is, as its name suggests, neither wholeheartedly one thing or the other. In this period the children may be seen scattered about the room using a variety of materials and making many different things. Each child seems to be doing creative work. The child himself is usually of the opinion that he is doing his own thinking and his own work; but when the situation is examined it is found that the teacher is merely couching her directions in such a fashion as to convince not only the child but also herself that the planning and executing are being done by the child. Usually this type of work period consumes from 30 to 40 minutes of the kindergarten session.

The third type of work period, the problem-solving or truly creative, is one in which the children are challenged with real problems. It may be that a fence is needed to keep the dogs from running into the garden. How and by whom shall it be made? It could be that the playhouse needs new dishes. What material is there in the kindergarten that could be used for dishes, what dishes are most needed, and how can they be made attractive? Or it might be that some pictures are needed both for room decorations and as a record of a trip which the children and the teacher made to the house which is under construction down the block. What materials shall be used and what are some of the things which might be most interesting to tell about the trip? Perhaps Jimmy was not present on the day the group went on the trip. How about making a record of the trip to show Jimmy? We might go on, mentioning possible situations which might offer a challenge to the children if presented in the right way. Individual problems as well as group problems can also be met in a work period of this type. Perhaps some child has been thinking a great deal about boats or he has had a book from the library about boats. The wood is in the wood box: how can he make a boat which he can float in the tank of water? Or perhaps some child's mother has a birthday. The child has thought about making her a tray, or maybe a pad for jotting down notes in the

kitchen, but then he sees other children designing doilies for the luncheon tables, and he decides he will make his mother a set of doilies for her birthday. Now he is really faced with a problem! What shape shall they be? What paper shall he use? What colors would his mother like? Etc. etc.

Whatever the problem, and whether it is group or individual in its nature, the process by which a solution is reached involves a putting together and testing of ideas. It is through this assembling and testing of ideas that a broad horizontal base is built for future learning. In the problem-solving type of work period, the children are usually to be found scattered about the room using a wide variety of materials. The teacher is not conspicuously in evidence, but she is there with each child's problem pretty clearly in mind. A laboratory atmosphere pervades the room, and the teacher stands by, ready to suggest, guide, praise, criticize, judge, and admire both effort and achievement. She is ready to give help when help is really needed, but she makes it a point to do neither the child's thinking nor his work for him. A work period of this kind may be anywhere from 30 to 60 minutes in length, and it often extends beyond its allotted time.

The materials used and the articles made in the three types of work periods may be identical in name, but the teaching techniques used during the periods differ tremendously. The following sections give examples of the way in which the making of a cardboard house might be actually handled from the three points of view. We shall grant at the outset that the making of a cardboard house might better be undertaken by third-graders than by kindergarteners, but since the illustration serves our point, we'll follow it through.

A Directed Experience. In the directed-lesson type of period, the children are usually working as a group sitting about the table. In this case the children have before them their half-finished cardboard houses. The wallpaper has been pasted on two walls; one wall has as yet no wallpaper. The teacher has marked the wallpaper so that if the child cuts on the line marked, the paper will exactly fit the wall. Each child has a pair of scissors and when the paper is passed out the children are instructed to cut very carefully "on the line." When the child has cut his paper he is requested to wait until all are through and then further instructions are given. The children are directed to turn their

paper over so that the design of flowers is underneath, and then they are directed to put paste all around the edge. When the paste has been applied the teacher helps each child in turn to put the paper smoothly and neatly into place. Next the teacher passes out small pieces of red construction paper, three by five inches in size. The teacher directs the children to roll the paper about their two fingers and then to paste the overlapping ends together. Many children have difficulty with this, so the teacher goes from one to another pasting the lapping portions together. When they have dried, the teacher directs the children to press the "chimney" flat on their tables. This they do; next, she asks them to put their fingers inside the chimney and open it again. Now she directs them to press the "chimney" down flat again; but this time they are to press it down so that one crease is directly on top of the other. Many children have difficulty with this, so the teacher asks them to watch carefully as she does it. Again the children try. The teacher goes about the tables straightening the folds. Finally the children are instructed to cut a hole in the top of the "roof" where the teacher has marked with her pencil. They take this step, insert the "chimney," and the "houses" are completed. The teacher writes the name on each child's house, and the houses are collected and put in a row in the cupboard. At the end of the day they are taken home to admiring parents.

A Semi-Directed Experience. In the semi-directed and semi-creative work period, the children are usually working on individual projects. One child is working on a cardboard house, which is finished except for the wallpaper on one side, and the chimney. The child comes up to the teacher with his house. "Have you pasted the wallpaper on this side?" asks the teacher, pointing to the side on which there is no wallpaper. "No," answers the child. "Well," says the teacher, "then you will have to do that next, won't you?" "Yes," answers the child. Thereupon the teacher picks up a piece of wallpaper and measures it on the wall of the house, cuts it to fit the side of the wall, and hands it to the child, saying: "Put your paste just along the edge, here and here and here." The child returns to his table, pastes the paper in, and is back to the teacher shortly. "Now what kind of chimney are you going to have?" asks the teacher, and then without waiting for a reply she asks, "Are you going to have a red chimney?" The child's eyes light up

and he says, "Yes, a red chimney." The teacher picks up a piece of red construction paper, folds it into the shape of a chimney, pastes it together with a bit of paste, and hands it to the child, as she says, "Just cut here and here in your roof, and I think your chimney will fit nicely." Soon the child, walking about the room, is showing everyone the house that he has made. When he takes it home, mother and father marvel at the *child's* ability.

A Problem-Solving Experience. The children are scattered about the room working on a variety of individual and group problems. One child is making a cardboard house like the one his big sister's friend made. It is made from a large hatbox which he has brought from home, and except for the wallpaper on one side and the chimney, it appears to be complete.

The child stands by his worktable, and as the teacher passes he looks up to see if she notices his work. She smiles her appreciation and says, "Your work is progressing nicely, isn't it? I notice that you already have the wallpaper on two walls of your house." The child smiles back and says, "And now I need some paper for the other wall." Whereupon the teacher says, "I think there is some paper in that box which will match yours." The child goes to the box and comes back beaming in a few seconds, saying, "Here's a piece just like mine, only it is too big." "So it is," says the teacher. "What are you going to do about that?" The child looks up and says in a very knowing tone, "I'm going to cut it off." With that he gets a pair of scissors, puts the paper on the outside of his house, holds it with one hand, and cuts it with the other. The imperfections in the result, the inaccuracy in size, and the occasional jagged cut in the side disturb neither teacher nor pupil. Filled with the desire to carry out his purpose, the child gets his paste, applies it to the inside wall of the house, and spreads his paper. Then he brings his "box house" over to the teacher again. While the teacher looks at it he remarks, "The paper won't go on very smooth," and the teacher suggests that the next time it might be wise to put the paste on the paper, that perhaps it would stay in place if paste were put only on the edges; and she adds that if paste were put only on the edges then it would not take so much paste. Next comes the chimney problem. The teacher and the child both look at the house. Finally, when the child has no idea to



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Problem Solving with Blocks and Builder Boards

offer, the teacher says, "What about this house? Is it to have a furnace or a stove in it?" "Yes," says the little boy; "and I'll have to make a chimney for it. What shall I use for the chimney?" "What kind of chimney has the house in which you live?" asks the teacher. "Ours has a brick chimney. It is red. I'll get some red paper." He goes to the cupboard and brings back his piece of red paper. "How shall I make it?" he asks. "Well, of course that depends on how you want it to look," the teacher replies. The child comments that the paper is too big. He cuts off a small piece and stands it on the roof. The teacher looks at it and says casually, "The chimney on my house is hollow, so the smoke can go up inside it." The child drops his scrap of paper and picks up his first piece. He rolls it round his fingers. "There; that looks more like a chimney," he says, and with that he pastes it together. He is not quite satisfied with it because he insists that his chimney at home is not round but like this (he forms a square with his two hands). The teacher makes a cylinder of her own out of a scrap of paper that is near. When it is pasted together she flattens it out, then opens it and flattens it so the two first creases are on top of each other. The child watches her and says eagerly, "Why, I could do that with mine." This he does. "And now to fasten it onto the house," says the child. He manipulates it first this way and then that. In the end he decides to cut a hole in the roof and insert the "chimney" in the hole.

The child may have spent his entire work period or even several work periods on his "house." His finished product is crude, and unless the parents are educated to understand the importance of problem solving, perhaps he had better not take it home. The teacher can find an excellent reason for his leaving it at the kindergarten. Some day when Mother is visiting kindergarten, she will see her child's product and hear about its evolution. Mother will note that the perfection of the product is quite comparable to the achievements of other five-year-old children. What is more, if she is an intelligent observer, she will note that every child in the group is not only doing his own work but is also doing his own thinking.

Initiating the Work Period. In helping the children to outline their plans for the work period, the teacher must be sure that a variety of rich ideas has been presented to the group. These ideas grow out of experience and are usually shared and discussed in the period which

directly precedes the work period. The teacher must guide the planning so that not all the children will want to use limited material or space simultaneously.

For example, a discussion period centered around the needs of the kindergarten playhouse might, if not wisely directed, lead to three fourths of the group's wanting to start work on chairs and tables for the house. Obviously twenty or more children could not be working at the workbench and sharing the tools at the same time. Three to five children might profitably be working about the bench at one time, but to have more than that would result in little more than confusion and certainly a waste of time. The teacher will not need to dictate what each child is to do; but she can, through her suggestions, guide the choice of activities into a variety of different channels. In handling large groups of children it is sometimes wise for the teacher to write down, as they develop in the discussion period, the possible activities which may be engaged in. Then under each heading, she can list the names or the number of the children who plan to engage in the particular activity. If this list is put on the blackboard, the children can see for themselves just how their plans are working out. The kindergarten child cannot really read the printed words, but from the teacher's explanation and the grouping of the symbols he can see, for example, how many people plan to engage in a particular activity. Incidentally, this is one of the many experiences which help to lay a foundation for reading.

If, after the plans for the work period have been discussed and most of the children have decided upon their undertaking for the day, there are still some children who do not know what they would like to do, the teacher may take further time to help these children formulate their plans. These last children often are not quite up to the level of the other children in development, and are interested in little beyond the manipulation of beads, pegs, sand, and blocks. (See p. 388.) As the teacher observes such children go about their work, she must be ever alert to behavior which may be indicative of real causes of their apparent immaturity. The teacher must guard against the possibility of letting these children get into the habit of waiting until the others have started working before they pretend to think or plan. Or, more serious even than this, they must not be allowed to get into the habit of expecting the teacher to do all their thinking for them. It is

to be hoped that as the year progresses there will be fewer and fewer occasions for separate discussions with these children.

When the discussion meeting is concluded, each child ought to have in mind the particular problem which he is going to attack. The child's plans may change tremendously as he works, but no matter how much his plans will be altered in the work period, he ought to leave the discussion period with some definite undertaking in mind.

In order to avoid congestion in the beginning of the work period, the teacher will have to devise some method for dismissing the children a few at a time from the discussion group. Sometimes she suggests that all the children who are going to use a particular material may leave the group at the same time. Often the division into small groups is made on the basis of those who have work to finish and those who are starting new work. At times the teacher may find that it is well to choose first those children who have the appearance of having well in mind exactly what they plan to do. Occasionally the group may be asked to observe the way in which a particular child goes about his work, noting how very businesslike his manner is. The approach to the work period can lend tone to the whole hour.

The Setup for the Work Period. The room itself has much to do with the type of work which is done in the work period. All too often the teacher dresses the room up to such an extent that the children do not feel free to enter into any wholehearted business. In general it may be said that the kindergarten room should resemble a laboratory more than a parlor, conservatory, or museum.

The equipment of the room ought to be such that the child can use it without feeling unduly inhibited. For example, it would be folly to have a carefully painted workbench in the room. Since a workbench is meant to be used for hard, rough work, it should be made of solid unstained wood that will stand many blows and an occasional misdirected nail. If possible, the regular tables should be finished so that the children can wash them when they need to remove crayon marks, clay, or paste. Battleship linoleum similar to that used on the floor makes a very satisfactory table top. There should be enough wastebaskets, brooms, dustpans, cleaning cloths, and brushes to suggest to the children their responsibility for the care of the room. The children

should at all times feel that the room belongs to them and that they therefore are responsible for its appearance and care.

There ought to be in the kindergarten room an abundance of material to which the children have access. Much of it ought to be in low spacious cupboards, though not all of it ought to be equally accessible to the children. Materials which are used every day, such as paper, crayons, scissors, paste, and wood, should be within easy reach of the children; while such things as cloth, enamel paints, tissue paper, tagboard and the like may well be on shelves which are less accessible. In stocking the cupboards, the teacher must consider carefully the allocation of materials and put together those materials which will be used together. In order to avoid congestion when the materials are being taken out or replaced, she must try to scatter the supplies in different sections of the room. It would be unwise, for example, to have the supplies of paint, crayons, scissors, and paper all in one cupboard.

The Function of the Teacher in the Work Period. It is probably more difficult for the observer to discern exactly what the teacher is about in the work period than in any other period in the kindergarten day. Though she keeps herself as much as possible in the background, yet she is alert to the whole environment, and she tries to have a friendly, earnest, scientific curiosity about all that she observes.

At all times she attempts to give the impression of being interestedly occupied. One teacher who failed to give this impression was accosted by a small girl in this fashion: "Say, Miss D——, don't you ever do any work?" Then, finding the teacher at a loss for an answer, the child added, "Oh, I suppose you do your work at home, don't you, Miss D——?" Often the teacher settles down with the children to do parallel work with them. That is, she makes their interests her interests and attempts to use the materials in much the same way as they are used by the children.

Always she must be ready to admire or justly criticize the efforts and work of the children. Thus will she help the individual child keep up to his own best accomplishment, and make sure that through the year the child is growing not only in the number of materials with which he is experimenting, but also in the number of ideas which he

is venturing to express through the materials. The teacher must encourage the child to see one piece of work finished before he starts on a second piece of work. This does not, of course, preclude the possibility of immediate interests' taking precedence over remote interests. It simply means that the child should be encouraged to see a job through, rather than being allowed to flit from one thing to another.

At times, if a piece of work such as pouring paint or lifting a large board into place for the roof of a house is really too difficult for the child, the teacher must be willing to help. Most young teachers err on the side of offering help when it is not really needed or desired. If a child is using tools in a dangerous manner, the teacher must redirect his use of the tools. If a particular grouping of individuals seems to result in undesirable social behavior, then she must take steps to reorganize the group. The teacher must be alert to the opportunities which arise for establishing good health habits and habits of courtesy. Through her own example she can do much to raise the standard of politeness and encourage the use of quiet, well-modulated voices.

Throughout the period, the teacher must strive to help the children maintain a workshop or laboratory spirit. She must stimulate the sharing of both materials and ideas. The children should be encouraged to learn when and how to get help when help is needed, and they should also be encouraged to know when and how to give help when help is needed.

If for one reason or another the teacher feels that the work period is not proceeding in a profitable fashion for the majority of the group, she ought to feel that it is her responsibility to call the group together and through further discussion get a better approach to the period.

Cleaning Up After the Work Period. If properly conducted, the cleaning-up period can be one of the most enjoyable, and it certainly is one of the most valuable, periods in the kindergarten day. Each child ought first of all to be responsible for the condition and order of his own materials and work space. If, after he has finished with his own cleaning, he is willing to help another child, then the work will progress rapidly and happily. The children may be expected to wash their own paintbrushes, fold up papers used under the easel, put away their own crayons in the proper box, replace their carpentry tools, brush off the workbench, put back into the cases blocks which are not



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Cleaning Up After the Work Period

part of structures to be left standing, close the sandbox, sweep up the sand, put small paste jars in the cupboard, wash paste sticks, remove paste and crayon marks from the table, pick up or sweep up the scraps from the floor, and organize the furniture for the following activities. If the program can be so planned that a library period will follow the cleaning period, then no organized group activity will be interrupted by those who are somewhat slow. Plenty of brooms, dustpans, wastepaper baskets, cleaning cloths, and scrub brushes will help to make this an interesting activity period. Responsibility shared by every child in the group and backed by as little teacher dominance as possible will relieve what might otherwise be mere drudgery.

Adapting the Activities to the Progress of the Group. There are so many activities carried on in the work period, and the activities vary so greatly from day to day and from one part of the year to another, that it is difficult to give any clear ideas of the program of the activities of the work period for either a day or a year. Certain general trends may be suggestive of the developmental program through the year.

In the beginning of the year the teacher will be stressing particularly the social side of the work period. Many of the activities, therefore, which are included in the so-called work period are really socializing activities, not, technically, work activities at all. While activities such as dollhouse play, play on the gymnasium apparatus, looking at books, manipulative play of all sorts (including play with beads and pegs, and purely manipulative block and sand play) might all legitimately belong in the work period in the beginning of the year, yet to continue the same activities in the work period throughout the year would be to build up an erroneous idea of work. First-grade teachers sometimes criticize the work of kindergarten teachers, saying that when the kindergarten children enter first grade they lack a sense of responsibility toward an undertaking. One can readily understand how this criticism might be justifiable of those kindergarten teachers who never, through the opportunities offered in the work period, help the children to acquire good work habits.

As the year progresses, kindergarten children may be expected to profit by purposing for themselves, with the aid of the teacher, quite definite undertakings. They should be able to profit also by seeing

their work through to completion. This does not mean that the kindergarten child is expected to "keep his nose to the grindstone" and work to exhaustion. Not at all! For the kindergarten child, the work period is one of the happiest and most delightful periods in the day; it is a time of achievement.

Before the kindergarten year is ended, the children may be expected not only to organize their own efforts toward a given purpose, but also with the aid of the teacher to organize their efforts into co-operative undertakings centered about a variety of interests. The plan of the kindergarten year as outlined in Chapter IX will be a guide to the interests around which the activities of the work period may be organized.

There are unlimited possibilities for the activities of the work period. These activities will be determined primarily by the interest of the week or of the month. They will be determined in part, of course, by the abilities and previous experiences of the group, and in part, necessarily, by the limitations of the kindergarten equipment.

If the interest is centered, for example, about the home, then the teacher need only begin a discussion of those things which appear in a real home which could be made for the playhouse, and she will be flooded with suggestions of making play furniture, curtains, dishes, rugs, pictures, books, kitchen equipment, and so on. Some of the articles suggested require considerably more skill to execute than others. Suppose some child suggests making a "piano." If the group has just entered school, it would be well to make a countersuggestion of making some simpler article first, with the hope of advancing to the play piano later on.

No comprehensive list could possibly be made of all the constructions which could be made by the children in connection with any one interest. Suffice it to say that the alert teacher will be quick to recognize which of the children's ideas are feasible, which can be developed with little adult help, which will require the co-operation of several children, and, above all, which will seem important and worth while from the point of view of the child. Unless the child feels that his work is worth his time and effort, then the main incentive of the work period is lost. The child who does not sense any purposefulness in his work may well feel as did the kindergarten child in the cartoon.

Sitting at a table with six or seven others, he threw up his hands and cried, "Color, cut out, and paste! Color, cut out, and paste! Where does it get me anyway?"

Use of Materials. In the following pages are listed some of the uses to which the kindergarten materials may be put, together with a few suggestions as to the responsibilities of the teacher in relation to both the materials and the children.

BLACKBOARDS, USED FOR POSTING

Lists recorded by teacher
Pictures drawn by children
Plans recorded by teacher

In most kindergartens adapted from classrooms far too much wall space is given over to blackboards. A blackboard three feet high and six feet long is probably large enough for the ordinary kindergarten room. If surplus blackboard space is covered with burlap or compo-board it may be used for picture displays. Sometimes the burlap or compo-board is fitted into a frame which can be put over the blackboard, or removed at will.

Blackboard painting is fun. Pictures which vanish like magic can be made by painting on the blackboard with clear water. Either a brush or a sponge can be used.

Most of the blackboard drawing is done with white chalk. There ought to be, however, a limited supply of colored chalk on hand for very special pieces of work. Colored chalk may also be used on wrapping paper or unprinted news.

If too many erasers are supplied, the children tend to become more interested in the erasing activity than in the drawing itself. Two or three erasers at the most should be sufficient for the ordinary kindergarten. Erasers should be cleaned frequently.

The blackboards should be washed daily. Nothing makes a room look more untidy than to see great expanses of blackboard covered with chalk dust. Children from the grades often enjoy coming into the kindergarten after school to wash the boards and assist the kindergarten teacher with other simple housekeeping duties.

When is a "blackboard" not a blackboard? When it is a greenboard!

Many greenboards are better than blackboards for chalk work and they are certainly more attractive in the room.

BLOCKS, TO MAKE:

Airplanes	Hangers
Automobiles	Houses
Barns	Lighthouse
Boats	Pavilion in park
Bridges	Post office
Fences	Station
Fire engines	Stores
Fire stations	Streetcar
Furniture for playhouse	Towers
Garages	Trains

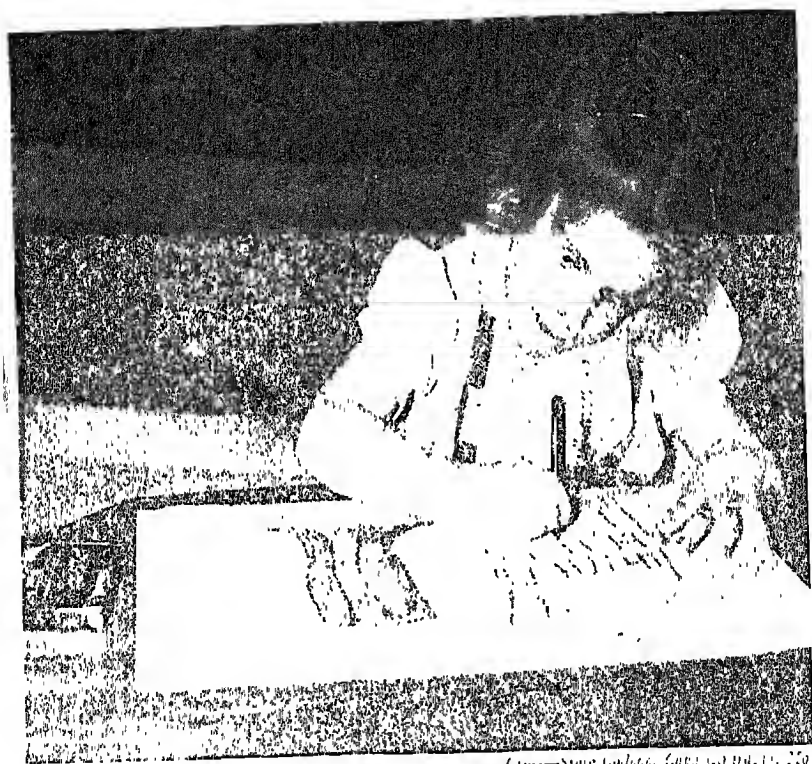
Whenever possible, the teacher should suggest that block building be done in a section of the room where there is likely to be little congestion. Large block structures which can remain intact and grow from day to day offer some of the best of problem-solving situations.

While the large building blocks may serve many purposes in the kindergarten, yet we must not overlook the fact that the small building blocks also have a place in the setup. The shy or unaggressive child often gets a good deal of satisfaction out of experimenting in his own simple way with small blocks, and all the children enjoy making garages and hangars for the toy airplanes and trucks which they often bring from home or which may be found among the kindergarten toys.

CRAYONS, TO COLOR

Baskets	Lanterns
Designs on cloth	Pictures on cloth
Doilies	Pictures on paper
Kites	Silhouettes

In most kindergartens the children do not have individual boxes of crayons, but rather they use the crayons from the general supply cupboard. The cupboard in which the crayons are kept should be in such a position that it gets the best of light. In order to help the children identify crayons with comparative ease, the crayons of different colors may be kept in small open tin boxes painted to match the crayons which they are to hold. On the cupboard door or on the shelf, there should be a piece of paper on which the children can test



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Drawing Is Serious Business.

the color of crayons. Purple, blue, and black crayons are often confusing to select even when the boxes are marked. Crayon marks on wood or linoleum can be removed with turpentine.

Kindergarten children are usually in a symbolic or schematic stage of drawing. They do not draw what they see before them, but rather they draw what they know about the thing before them. It is better to let children express and clarify their ideas through their drawing than it is to give them patterns to copy.

SCISSORS

Sometimes scissors are kept in covered cardboard or wooden boxes into which holes which exactly fit the points of the scissors have been drilled. A clay holder made in the same way can be fashioned by the children themselves. When the children carry the scissors from cupboard to table, they should be encouraged to keep the points together and down, thus avoiding the danger of accidents.

If a child finds it difficult to cut with scissors, it is well to encourage him to open the scissors wide and to attempt to cut close to the screw which joins the two blades. There is much less danger of the paper or cloth slipping between the blades if this system is followed.

PENCILS

Pencils are always in demand. Pencils, like scissors, may be kept in holders made of clay. When the clay block is soft, a pencil slightly larger than the one commonly used may be used to make the holes; then when the clay dries, the hole will be the right size for the somewhat smaller pencil. The pencils should be placed in the holder with their points up.

CLAY, TO MAKE:

Candlesticks	Playhouse dishes
Christmas-tree ornaments	Scissors holders
Models of fruits and vegetables	Spindles
Pencil holders	Spool holder
Plaques	

Clay is best kept in earthen jars tightly covered. If three three-gallon jars are used, then the clay can always be kept in usable condition. In the first jar the teacher may put the dry bulk clay, powdered clay, or

old discarded unpainted clay articles. This clay she will cover with water. After the clay has soaked for a day or more she will remove a part of it with a trowel and place it in the second jar, letting the surplus water drain off as she lifts it from the first jar. Some of the clay from the second jar may then be removed and put into piles on a clay board. The clay on the boards should be covered with paper towels or a heavy cloth to prevent dry crusts forming. When the clay is dry enough to work into balls (it may take five or six hours or longer, depending upon the humidity of the air), the teacher will drop the balls onto a slightly raised platform in the third jar. In the bottom of the third jar under the platform there will be an inch or more of water to help keep the clay properly moist. If the cover is kept on this jar, the clay will remain ready for use almost indefinitely. Once the cycle of clay jars is started, clay will always be on hand when needed. Powdered dextrin added to the clay will make the products stronger.

Oilcloth, heavy paper, or individual clay boards made of plywood may be used on the tables when clay work is being done. The clay board has several advantages over the oilcloth or paper. In the first place, the clay board will serve as a tray on which to carry the clay; in the second place, it gives a firm surface on which to work; and in the third place, the clay board may be scrubbed and put away as the individual child is through with his modeling. Kindergarten children need few, if any, tools with which to manipulate clay. A pencil or a few nails with perhaps a can cover added will usually answer the most exacting needs of the five-year-old. When tools are supplied, the children seem to find them inhibiting to their ideas.

Kindergarten children are usually more successful with clay if they model their articles from the ball or solid rather than from the coil. If an article is to be worked on over a period of two or more days (which is not likely), it is well to wrap it in a damp cloth and store it in a covered earthen crock when it is not being worked on. Clay articles must dry thoroughly before being painted.

The five-year-old child does not profit greatly by having a model before him. He may look at, study, and talk about an object before he begins modeling, but when he actually does begin, it is well to remove the model. If the child tries to follow the model he often becomes so absorbed in particular details that he loses sight of the "whole" which he is trying to achieve.

CLOTH, FOR MAKING:

Bags	Flags	Scrapbooks
Beanbags	Pillows	Sheets
Car tops	Pincushions	Table covers
Costumes	Purses (oilcloth)	Tents
Curtains	Sails	Upholstery for furniture

Although one tends to associate cloth with the activity of sewing, there are other things which can be done with cloth which are far better adapted to the kindergarten child's stage of motor development. For example, cloth can be used for upholstering furniture, for making tops for automobiles or sails for boats. It also makes a good background for certain crayon and paint work.

PAINT: OPAQUE WATER COLORS, TO BE USED TO:

Decorate clay articles	Mix with wax for candles
Decorate flags of cloth or paper	(paint powder)
Decorate furniture	Paint pictures on cloth
Mix with starch for finger painting	Paint pictures on paper

If powder paint is to be used, the teacher usually has it ready-mixed for the children. About two tablespoons of the paint powder are needed to make one glass of paint. In mixing the powder and water it is well to add the water slowly to the powder. Red paint is by far the most difficult to mix, and it has three other distinguishing characteristics. It is the most popular color, it is the most expensive powder, and its stain is the most difficult to get out of garments. The paint purchased in liquid form seems much more expensive than that in powder form, but it can be diluted to such an extent that it really is no more expensive in the end. Liquid paint is easier to prepare for use. Not too much of either should be mixed at one time, for if it is allowed to stand over a period of several weeks the odor becomes very disagreeable. Paint which has been mixed should be kept in tightly covered jars.

If the easels have trays with high sides or wells in which to set the paint glasses, any glass which will fit the tray may be used. If the easel has only a low molding for its paint shelf, then the paint may well be set in weighted containers similar or identical to those which are used

in drugstores for glass holders. If these weighted holders are used, the paint may be put into paper cups and set into the holders. Paper cups are particularly satisfactory because the bottom of the cup can be pushed out after the paint has been poured out and the thick part of the paint may be scraped off and used again. Paint glasses may also be set in wire frames such as those used for iccd-tea glasses. The wire-frame container is particularly good if the painting is to be done on the floor rather than on the easel. The glasses should never contain more than enough paint to cover the hairs of the brush when the brush stands in the glass.

If the handles of the paintbrushes are painted to match the color of paint in which they are to be used, then the child will be helped to use the brush in the proper color. The children should be encouraged to wash brushes when they have finished with their painting. The washed brushes should be pinched to a point and placed brush-end up in a holder. According to some artists they should be dried and laid flat on a tray, but under no conditions should they be allowed to stand brush-down in a container.

When the opaque water paint is used on clay or wood articles, a coat of white shellac should be added to give the finish a gloss and to prevent the paint from coming off on one's hands and clothing. Pictures which have been painted with water paints may be preserved by being sprayed with "fixative" or a very thin liquid paste.

FINGER PAINT: COMMERCIAL AND HOME-MADE

Finger paint may be purchased ready for use in one-fourth, one-half, and pint jars or it may also be purchased in quart jars. It is more economical to buy it in the quart size. Commercial finger paint has the advantage of being ready for use at any time, and its consistency is somewhat more desirable than the home-made finger paint. However, the commercial paint is very expensive and a home-made substitute is relatively very inexpensive. There are a great variety of recipes for making the paint, but a very simple one suggests mixing together a cup of starch and a bit of cold water and then pouring over this, while stirring, two cups of boiling water. The starch should appear clear or silvery. If it does not appear so it may be that the mixture will have to be cooked more. Vegetable dyes should be added for color effects. Home-made finger paint does not keep for any length

of time. Therefore only small quantities should be mixed at any one time. As the name denotes, fingers instead of brushes are used to apply the paint. The paper, usually glazed shelf paper, is dipped into a pan of water and then spread onto an oilcloth surface. Then the starch paint is applied to the paper. About a teaspoon of paint is put onto a sheet of paper 12" x 18". The child rubs the starch paint all over the surface of the paper with the palms of his hands, and then with his finger, hands or arms makes all sorts of fanciful designs and pictures on the starchy surface. Finger painting can also be done directly on a marble or enamel surface, and then if the picture is to be saved, a print can be made by putting a paper over the picture. A variety of colors may be used, but for the kindergarten child it seems to be more satisfactory to use a single color.

PAINT AND WAX

Old candles melted down or melted paraffin to which paint powder has been added makes the beginnings of new hand-dipped candles. If the melted wax is poured into a large-mouthed jar, and the jar placed in hot water, the dipping may begin. Heavy soft cord to which a weight, a burr, or a nail has been tied forms the wick of the new candle. After each dip into the wax jar the wick with its adhering wax is plunged into a jar of cold water. The weight may be removed after the third or fourth dipping. The process of dipping is continued until the candle has reached the desired thickness. The candle is then hung from a rod to cool and harden.

PAINT (ENAMEL), TO BE USED TO:

Decorate clay articles

Decorate small wooden trays, plant stands, etc.

PAINT (FLAT), FOR.

Birdhouses

Chicken house

Furniture for playhouse

Garden fence

Wagons, sleds,

Boats, airplanes, etc.

Sometimes an article seems to demand a finish a bit less crude than that given by powdered paint and shellac. For example, at Christmas time, clay candleholders and bowls are more truly festive if they are covered with clear bright enamels. Sometimes pieces of furniture made by the children are worthy of real house paint. Articles such as

birdhouses, chicken coops, etc., which are to be put out of doors, need to be painted with flat paint rather than with powdered paint and shellac. A varnish brush with a one- to one-and-one-half-inch spread is suitable for applying the flat paint. One of the regular brushes used for the shellac may be used for the enamel. Whenever the children use enamel or flat paint, they should spread papers under their work. In order to protect their clothing, they should wear aprons, smocks, or coveralls.

APRONS

The kindergarten usually has a few aprons on hand for emergencies, but it is wise to encourage the children to bring others from home. Smocks or overalls make a more satisfactory covering for clothes, but butcher aprons which cover the child front and back are more easily adjusted to various-sized children. Sometimes the kindergarten aprons are made of oilcloth or rubber. While these have the advantage of thoroughly protecting the garment under the apron, yet since they are nonabsorbent, the paint often runs down the apron and onto the clothes below. A heavy gingham apron which slips over the child's head, butcher fashion, and ties at the waist with long strings, is probably as satisfactory as any other apron for most purposes.

PAINT REMOVERS

Shellac brushes should be washed first in alcohol and then in soap and water. After rinsing, they should be placed flat on a tray or brush-end up in a container. A small bottle of alcohol and dabs of cotton or small squares of cloth should be on hand in case any shellac gets on tables or hands. Brushes used in flat paint or enamel should be washed in turpentine or some other paint remover and then further cared for as suggested above. Any spots of flat paint or enamel ought to be wiped up immediately with turpentine.

PAPER (CONSTRUCTION), TO MAKE

Baskets	Hats and crowns
Chains for Maypole	Paper dolls
Doilies	Poster pictures
Envelopes	(individual and group)

PAPER (MANILA), FOR:

Background for poster pictures	Hats
Books	Kites
Curtains	Paper dolls
Curtain tiebacks	Pictures (crayon, pencil, paint)
Doilies	Tablecloths

PAPER (UNPRINTED NEWS), TO BE USED FOR:

Pictures (crayon, paint, pencil)
Protection for table and floor

PAPER (SHELF), TO USE FOR:

Finger painting

PAPER (WRAPPING), FOR:

Background for poster pictures
Costumes
Roofs for cars, houses, etc.

PAPER (TISSUE), TO MAKE:

Paper flowers for valentine box
Paper flowers for Maypole costumes

Construction paper in sheets 9" x 12" ought to be available in small amounts for the children's use. The reserve supply should be out of the children's reach. A box of odds and ends of colored paper may be kept on a low shelf with new unused paper. The children should be encouraged to pick the size and shape of paper which will be most suited to their needs, and they should learn to trim off and return to the box any usable bits of paper.

Manila, unprinted news, and wrapping paper may all be used for painting. Since much of the painting is done on an easel, the paper should be at least 12" x 18" or, better yet, 18" x 24" in size. The unprinted news is used on the easel more frequently than is the Manila or wrapping paper. The Manila paper holds paint better, but it is rather too expensive for unlimited use. The paint paper is fastened on the easel either with thumbtacks or by large spring paper clips, held in place at the top of the easel. Sometimes long strips of wrapping paper are stretched out on the floor or posted on the blackboard. Children also enjoy making murals, particularly train pictures, by pasting sheet after sheet of unprinted news together. The process

usually involves painting a unit, then pasting a fresh piece of paper to the first unit, painting on that piece, and so on.

A large roll of wrapping paper, 18" to 30" in width, in a neutral tone, affords the children abundant opportunities to experiment freely with art work. If the wrapping paper can be installed in the cupboard on a roller, then its use is greatly facilitated. Wrapping paper makes an excellent background for the large poster-type picture which may be built up through paper cutting and pasting.

PLASTICINE, FOR MAKING MODELS OF.

Animals	People
Birds	Vegetables
Fruit	Vehicles

Plasticine is not intended as a substitute for clay. It is simply another medium through which the child can express himself. Plasticine is like clay in that it can be pinched and molded into any desired shape. It is unlike clay in that it never hardens. If kept in a covered tin box like a breadbox and placed on or near the radiator, it will always be ready for use. Old plasticine which has become dry and lifeless can be reconditioned by working into it a bit of vaseline. There are two attitudes in regard to the use of plasticine. Some teachers would never use it with groups of young children; these teachers contend that it is neither sanitary nor pliable enough for young children to use. Other teachers maintain that it carries its own disinfectant and that if kept under proper conditions, its pliability is not to be questioned. As suggested above, it is not to be thought of as a substitute for clay. It is merely another medium of expression.

WOOD, TO MAKE:

Bird feeding stations	Pencil holders
Bread boards	Plant stands
Coat hangers	Signs
Fences	Spindles
Furniture for playhouse	Toys (airplanes, dolls, sleds, trains, wagons)
Garden rakes	
Houses for pets	Trays

The wood should be kept in a large chest. If the chest is divided into sections to fit the various lengths and shapes of wood on hand, then much confusion will be saved. Probably the best place for

carpentry tools is an open-faced frame on which the tools can all be hung. A penciled or painted outline of the tool, indicating the particular spot on the board on which the tool is to be hung, will not only encourage the children to return the tools to their proper places, but will also be a check on any missing tools.

If the wood which is ordered can be obtained in three-foot lengths, then it is easier for the children to manage and easier to store. Odds and ends of soft wood from milling companies will stretch the supply, and the variety of shapes in a mill-end load of lumber may give many suggestions to the kindergarten builders. White pine is a satisfactory wood for kindergarten work.

SAND, TO MAKE

Castles	Mountains	Rivers
Hills	Oceans	Streets
Lakes	Parks	Towns
Molds of foodstuff	Patos	Tunnels

The sand in the sandbox should not come more than halfway to the top of the box. The sand should always be kept moist; whenever possible it is well to air it in the sun. The sandbox with a cover is more satisfactory in the kindergarten room than the one without a cover. In the first place, when the cover has been put on, the children's temptation to loiter at the box or to dangle the fingers through the sand while passing is removed; in the second place, the covered sand table gives extra table space in the room.

If the majority of the group of kindergarten children has come through nursery school, then it is questionable as to whether or not an indoor sandbox is an essential part of the kindergarten setup.

WASTE MATERIALS

CARDBOARD BOXES, TO MAKE:

Baskets
Drums
Letter files
Toy vehicles
Trays for salt and pepper shakers
Wastepaper baskets

COFFEE CANS, TO MAKE:

Doorstops
Nail cans
String containers

CORKS, TO MAKE:

Animals with toothpick legs
Floating toys

HAT BOXES, TO MAKE:		SCRAPS OF WOOD
Drums		SCRAPS OF CLOTH
Footstools		SHOE BOXES, TO MAKE:
Wastebaskets		Furniture
MAGAZINE PICTURES,		Streetcars
TO MAKE.		Wagons
Pictures for the wall		SPOOLS, TO MAKE:
Scrapbooks		Beads
MILK-BOTTLE TOPS, TO MAKE:		Legs for small furniture
Radio dial		Shade pulls
Shade pulls		Smokestacks
Wheels for toy vehicles		Wheels on wagons
Wrist watch		SUCKER STICKS, TO MAKE.
ORANGE AND APPLE GRATES,		Axles on cardboard wagons
FOR:		Garden markers
Furniture		Pegs for peg board
Houses		TYPEWRITER-RIBBON SPOOLS,
Stores		TO MAKE.
Vehicles		Dials
POWDER BOXES, TO MAKE		Pulleys
Toy clocks		Wheels
Pincushions		

The kindergarten teacher must reserve ample room for the storage of waste materials. The children ought to be familiar with the materials which are on hand, and ought to be encouraged to bring contributions. The materials themselves are often the inspiration for creative work. The articles in the collection of waste materials, like the articles in the costume box, encourage much imaginative play and fill many a felt need in carrying a project to completion.

Evaluating Work and Raising Standards. More repetition of activities connected with materials will give the child some information as to the properties of the material in question, and may to some extent improve his skill in handling the material; but it is likely to result in more and more careless work. If a child's work is to show steady improvement, the child needs not only to receive constructive criticism, but he needs to be given the desire to do better work next time.

Psychological experiments¹ have shown that improvement in performance appears when the subject really wants to improve, and when he has some knowledge of what his past performance has been. This is true also in the kindergarten. Constant doing, without ever trying to do better or without ever realizing that past performances showed shortcomings, avails little. The kindergarten child works at his best when his efforts are appreciated and when his mistakes as well as his successes are noted. No child respects a teacher who can be hoodwinked into believing that poor work is good work.

Individual Criticism. As the teacher moves about the group during the work period, she makes remarks which tend to raise the standard of the work being done. Some criticism seems to be absolutely essential if the child is to better his work appreciably. Positive criticism is of course more effective than negative criticism. To comment favorably on the features which the child has included in his drawing of a man, and then to suggest that the man will need arms if he is going to be able to carry anything, will bring much greater improvement than to say merely that the drawing of the man is poor and really doesn't look much like a man.

Group Criticism. In most kindergartens there is a time set aside for the group to gather for the purpose of evaluating children's work and raising the standards of effort and achievement. This group meeting may either precede or follow the work period, or both. The discussion which follows the work period considers the work which the children have just finished; the discussion which precedes the work period considers the work of the previous day or days and gives impetus for the work of the period which is to follow the discussion. Experience would seem to indicate that the evaluation period which precedes the work period does more to raise the standards of effort and achievement than does the evaluation period which follows.

To this group meeting the children may bring the articles on which they have been working. Or, if the work is of such a nature that it cannot be brought to the meeting, the children may report

¹ Wolf, Theta H., *The Effect of Praise and Competition on the Persisting Behavior of Kindergarten Children* University of Minnesota Institute of Child Welfare, Monograph Series, No. 15, University of Minnesota Press, Minneapolis, 1938

on their achievement, and, perhaps, invite the group to see their work. Through the discussion, directed by the teacher, some of the following points are considered: the general plan of the work; the suitability of the medium used to the product achieved; the care which the child has exercised; the industry which is behind the work exhibited; the relation of the product to the child's ability; ways in which the product might be improved upon; specific continuation plans.

The children should at all times be encouraged to give their criticisms in a helpful, constructive manner. Those children whose work is being criticized ought to feel free to justify their procedures, but they should also profit by the criticism of their work.

Children who have problems with which they would like help are asked to present their difficulties to the group. Children and teacher together offer possible solutions of the problems. If the teacher feels that a particular child needs help and does not himself recognize the fact, she will ask that child to bring his work before the group.

At times the teacher will ask the child who does not need help, but who has ideas incorporated in his work which might be helpful to others, to present his work to the group for their enjoyment, appreciation, and inspiration. Though the teacher may feel that the example of originality and good workmanship exhibited ought to be a real inspiration to the others, yet she must remember that the criticism and praise which she gives to this very superior piece of work is probably beyond the understanding of the less able child. The teacher must guard against the possibility of letting herself fall into the habit of asking only the able children to show their results. If she does this too frequently, she is giving the time of the whole group to the very few able children; then the less able children who, perhaps, need more encouragement and help than those who have already met with success, are neglected. In almost every effort, the alert teacher can find something worth while on which to comment.

It is not to be supposed that it would be wise to bring the work of every child before the group every day. To do this would result in little more than boredom. But certainly the teacher ought to be mindful of the fact that every child needs at some time to have his effort and his achievement evaluated. In some large kindergartens, the teacher follows the practice of discussing with the group only one

type of work each day. On one day, for example, only those children who have worked with paper bring their work to the group. Another day it may be only those who have worked with wood, and so on. All the children in the kindergarten are expected to be at the meeting whether they used that particular material or not. Both individual and group criticism are needed if the children are to be expected to raise the standard of their work.

SUMMARY

There is great variation in the types of work periods found in the modern kindergarten. By and large, the problem-solving type would seem to have the most points in its favor. The room and the equipment have much to do with the type of work done in the period. The teacher tries to keep herself in the background as much as possible, yet she has each child's problem pretty clearly in mind and is alert to the whole environment. As the year progresses, certain occupations which were once accepted as work activities become play activities. The child needs to feel that his work efforts are really purposeful. As he is confronted with and solves his problems through a variety of media, he assembles and tests his ideas, thus building for himself a broad horizontal base for future learning.

QUESTIONS AND PROBLEMS

1. Consider the three situations described on pages 160 to 166. Show to what extent each one fulfills the purposes of the work period outlined at the beginning of the chapter.
2. If you were the teacher in charge, and Sally said, "I can't draw a man; you draw one for me," what would be your response? Why?
3. In some kindergartens there is a clean-up committee designated for each day. What arguments can you assemble for or against this practice?
4. Suppose your kindergarten group had visited a fire station. List at least six ways in which the experience might find expression in the work period.
5. At the end of a discussion of work to be undertaken, one child has set his heart on attempting something which the teacher knows cannot be done at all satisfactorily (either to him or to the school). What attitude should she take toward his wishes?

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Free Play in the Kindergarten

THE kindergarten provides time for free play in order that the child may have opportunities to:

1. Choose his own activity.
2. Experiment freely with materials and apparatus.
3. Engage wholeheartedly in dramatic and imaginative play.
4. Solve his own social problems.
5. Converse freely with other children.
6. Lead the group without relying upon teacher direction.
7. Co-operate with the group without relying upon teacher direction.
8. Experience the joy which spontaneous play brings.

A free-play period in the kindergarten ought to be a time in which the children really engage in the kind of play which the name suggests. This does not mean that an unlicensed spirit shall pervade the group; but it does mean that there will be no fixed rules, no formal mode of procedure, and in general no climax toward which the specific play is directed. In so far as the activities do not interfere with the best good of the group, they will be guided by the interests and fancies of the individuals of the group. The setup of available equipment, and not any prepared plan of the teacher's, should provide the inspiration for the activities of the period. One small boy, in response to the teacher's attempt to outline a plan of activity for the period, expressed himself wholeheartedly in this fashion, "But we don't want to play things, we just want to play" And that, if the period is to be truly a free-play time, is exactly the spirit in which the children may be expected to enter into its activities.

Time. Free-play time appears most often at the beginning of the daily kindergarten session. When scheduled at this hour it gives the chil-



Public Schools, Oakland, Calif

Dramatic Play—Simple, but Obviously Satisfying

dren opportunity to exchange news bits and generally renew the friendships of the previous day before coming together into an organized group.

Sometimes free play is introduced into the middle of the day's program for the purpose of offering rest and relaxation to the children. If scheduled for the middle of the session, the teacher must make sure that the children do not confuse its activities with the activities of the work period. It is easy for the children to confuse the drifting informality of the one with the informal purposefulness of the other.

Free play which is scheduled for the beginning of the session is apt to be longer than that scheduled for the middle of the session. Either period, however, may run from ten to thirty or more minutes in length.

The Setup for Free Play. In some schools the children go from their own room into a special activity or gymnasium room for free play. In other schools the kindergarten room itself, and in still others a combination of the kindergarten room and the play yard, are used for the activities of the period. Of course if the kindergarten room is too small to allow the children to move about with a sense of freedom, then it is probably wiser to go to another room for play. But there is so much in the kindergarten room itself which can be used to advantage for free play that it would seem profitable, if practical, to remain in the home-room for the period. If the kindergarten has an exit leading into its own play yard or a section of the main school playground, then both the playground and the kindergarten room can be used for free play.

Special-Activity Room. The special-activity room is usually the school gymnasium or a vacant classroom which has a wide sweep of clear floor space. In this room, one may expect to find one or two pieces of playground apparatus such as a slide, a teeter-totter, a rocking board, a climbing rope, a swing, or a jungle gym. Equipment in the way of tricycles, wagons, jumping ropes, balls, and ringtoss games may also be available for the children's use. Sometimes a play corner or a playhouse has been set up on one side of the room. The special-activity room is more often used in the middle of the morning than at the beginning of the daily session.

The Kindergarten as Its Own Activity Room. In most kindergarten rooms, if the space is economically apportioned, a place can be found for at least one piece of playground or gymnasium apparatus. The jungle gym offers more play possibilities for more children than does any other one piece of play equipment. As many as eight or ten children can be on it at one time, and if a slide is made by hooking a removable plank to one of the rungs of the jungle gym, even more children can be accommodated. The jungle gym is not only used as a piece of physical-activity apparatus, but it figures largely in the dramatic play of the children. Sometimes it is a cage, sometimes an airplane; sometimes a house or tower; sometimes, as its name suggests, a jungle.

The doll corner of the kindergarten offers untold possibilities for co-operative and dramatic play. In addition to being used for house-keeping play, it is a center for play involving the dramatization of the work of many of the community helpers. The milkman, the fireman, the policeman, the postman, the doctor, the deliveryman, and door-to-door agents all come in for their share of dramatization.

During the work period, the children may have been making such things as trains, airplanes, boats, barns, post-office buildings, or general stores. If so, they will welcome the opportunity which the free-play period offers for dramatic play centered about these pieces of construction work.

Many of the materials, particularly those of the manipulative type which are used in the work period, may well be experimented with and enjoyed during the free-play period. There are all sorts of ways in which one might experiment with blocks, during this period. Towers, designs, and all kinds of fanciful structures might be built. A tremendous amount of fascinating dramatic play often centers around the block play of the free-play time. Play in the sandbox, using the various measures and molds and toys, would offer excellent opportunities for wholesome co-operative play. Even the pegs and beads and puzzles which may have long since been ruled out of the work period might be enjoyed again in the free-play period. Some children might enjoy spending their free or leisure time in looking at books, while others might perhaps be eager to try out an original idea with chalk, crayons, or scissors. The piano, the xylophone, or sets of chimes or percussion instruments might also be experimented with at this time.

Some children may find pleasure in organizing groups for simple ball games such as bouncing and catching games or tossing the ball in the basket. It might be that even more complex games would be launched by the children.

Except in the free-play period, there is really very little time for kindergarten children to enjoy watching the activities of the fish, turtles, polliwogs, mice, chipmunks, birds, or other live pets which may be in the kindergarten. Some children will spend much of their play time with these pets.

The Playground.* The first requisite of a playground is that there shall be plenty of safe space in which to play, and the second requisite is that there shall be a good surface on which to play. Grass is of course the ideal covering for a playground, but even for kindergarten children it does not seem to hold up too well. Probably the best substitute for grass on the playground for young children is tanbark. This is of course not nearly so attractive as grass, but it is clean and offers itself as a reasonably soft surface on which to tumble. If the playground is near a street, it should be shut off from traffic either by a fence or a dense hedge. Some cement surface, preferably in a circular construction, should be provided for wheeled vehicles. A real or artificial hill or slope adds greatly to the possibilities of a yard, and if a "climbable" tree is growing on the grounds, then little else could be desired in the way of a setting. An out-of-door sandbox, a climbing apparatus, swings, tricycles, wagons, and maybe a scooter, a few pieces of rope, and several balls, some large hollow building blocks, a few boxes and boards—and the playground makes a pleasant complement to the kindergarten room. Outside storage space should be provided for the outdoor equipment.

Free play of all kinds will be inspired by such a setup. Even though the play yard or playground is not adjacent to the kindergarten room, the kindergarten teacher ought to make an effort to offer some opportunity for daily out-of-door play in pleasant weather. The teacher in the Northern states should reckon snow as one of the priceless play materials. Southern guests, visiting a kindergarten in Minnesota on a snowy winter day, could not cease to marvel at nature's contribution to the playgrounds of the north.

* See also Chapter VI.

The Function of the Teacher in the Play Period. The teacher will have to encourage children in certain activities and discourage them in others. She must be ready to encourage all kinds of wholesome, whole-hearted play, and she must be ready to discourage play which interferes with the deserved freedom and rights of others. She must be careful not to set herself up as a tribunal to which all arguments and disputes are brought. When individuals come to report the misbehavior of others, she ought to refer the one reporting back to the offender, making it clear to the child that the offender and not the teacher is the one to be dealt with in such cases.

Sometimes, when invited by the children, the teacher may join in the children's play. As an observer she can learn much about the interests and the background of the children. Such remarks as the following, overheard in the free-play period, might have significant bearing upon the teacher's later dealings with the children.

One small girl to another as they played in the doll corner: "I don't know why my mother never wants me at home. She likes me, but she never wants me at home."

A boy to his companion as they played in the kindergarten store: "I don't like your father. He's an employer and employers kill working men."

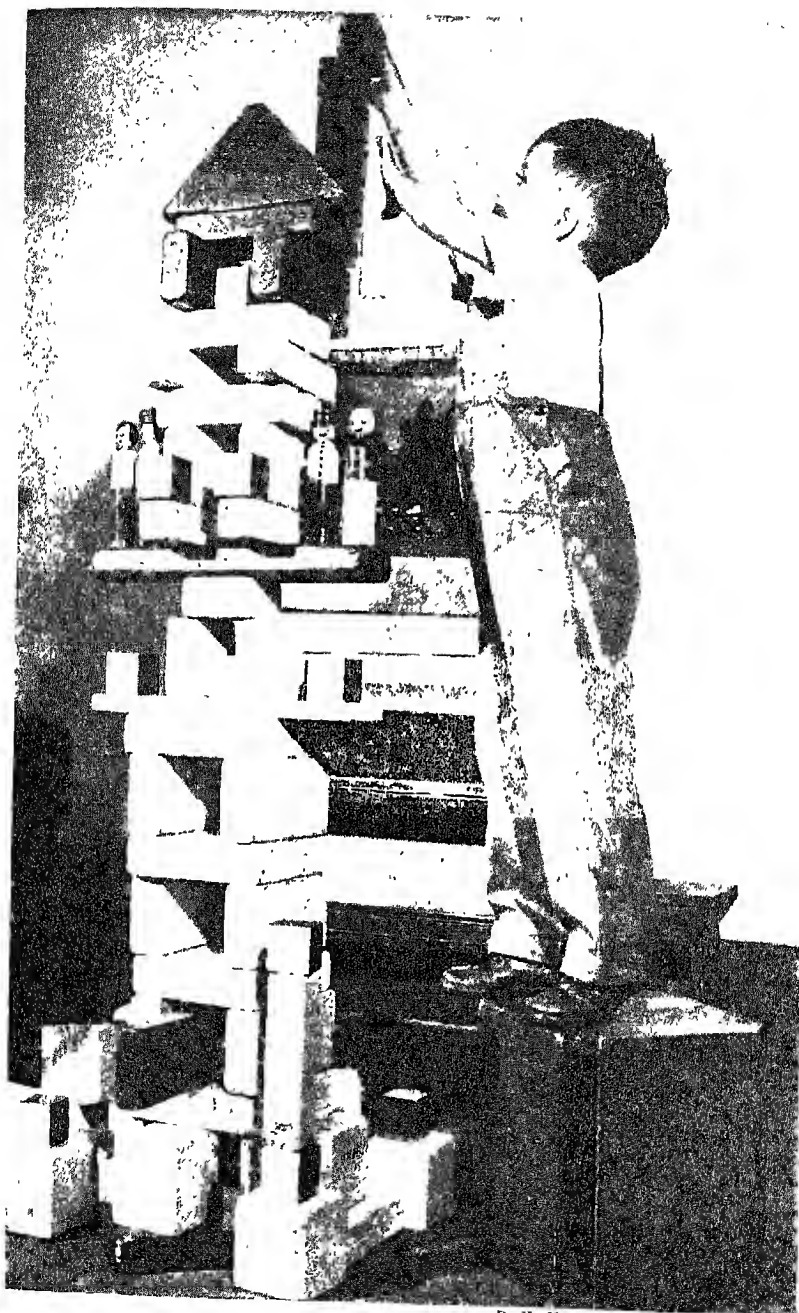
A boy talking to himself as he built cliffs in the sand: "When I was in London I had tea at the zoo with my nurse."

The two following observations made in the vicinity of the doll corner give amazing insight into the two kinds of experience to which the children must somewhere have been exposed:

Jane picks up the toy telephone, clicks the receiver petulantly up and down and says: "Operator, operator, give me Porter 4956, and make it snappy, too." After a second she says: "Hello! I want to talk to Betty! That's what I said . . ." and so the conversation continues.

A few minutes later Barbara picks up the same telephone. She lifts the receiver, waits patiently for a brief interval, then says, "Drexel 5631, please." After another interval she says, "Hello, is this Drexel 5631? This is Barbara speaking. Is Emily at home? . . . Yes I would. But don't disturb her if she is resting. . . . No, please don't. I'll call back later around three o'clock, perhaps. . . . Thank you! Good-by."

The teacher must be ever present in both mind and body during the free-play time. She must encourage the children to engage in a



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A Breathless Moment

variety of activities. The child, for example, who always plays the piano during the period, ought to be encouraged to do other things—not only for his own sake, but for the sake of others who may want a turn at the piano. The child who always plays alone ought to be encouraged or invited to join the play of others.

If the teacher observes that a naturally very aggressive child has come to be the exclusive solon of his party, she should find a way to invest another member of the group with power which would offset that of the dictator. Perhaps the young dictator brought a ball from home, and he is specifying just how and when and what everyone is to do in his game. The teacher might casually toss out a second ball so that two games could be organized, thus “relieving” the solon of some of his power.

Sometimes the children seem to run out of ideas for wholesome fun, and their play degenerates into silly tomfoolery. Upon such occasions the teacher must be ready to offer suggestions which would stimulate further interest in play of a desirable type. Favorable comments on interesting play of another child or group of children will often inspire the others to change their type of play.

Occasionally a child becomes overstimulated in the play period, and loses all sense of balance in his demeanor. In such cases the teacher is justified in asking the child to leave the group to get control of himself by resting up a bit. Maybe it will suffice his needs to sit down and watch the others, or perhaps it will be necessary for him to get a rug and stretch out and relax completely. The way in which the teacher uses her prerogative will make all the difference in the world in the tone of the play period. If the teacher commands the child to sit or lie down, that is one thing; but if she says in a calculated but somewhat offhand manner, “Pretty excited, aren’t you, Peter? Better sit down and watch the others for a while, until you get control of yourself,” that is quite another matter. In the second instance, the teacher seems to be just a part of the whole, she does not swoop in from the outside, and her judgment seems to be based on a somewhat careful analysis of the total situation. The child may be expected to acquiesce to the second mode of approach more readily than to the first. Though the teacher tries to make play time a free period for the children, yet it may be noted that the teacher herself is not free to do as she likes in the period. She must at all times have a picture of the whole situa-

tion in mind so that if or when it is necessary for her to step in, she can do so with the least possible appearance of interfering and dictating. When the period is ended and the children have finished using the play material and play apparatus, the teacher must see that the children collect and replace the materials, and, perhaps with her help, put the apparatus back in its place.

SUMMARY

Free-play time, which is distinct from the work period, will give the child the time which he needs to exchange both relevant and irrelevant ideas with his friends, to co-operate in the child-directed group, to play with things he has made, to investigate the possibilities of many materials, to become acquainted with the available material, to play on the apparatus, to observe the live animals, and to indulge in any hobby he may have. It furnishes an opportunity for dramatic play and for the accompanying review of various things which he has learned. A time assigned to free play will help the child distinguish between mere play and the sustained, definite, purposeful effort of the work period. The teacher is an essential, though unobtrusive, element in the free-play period.

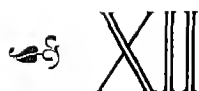
QUESTIONS AND PROBLEMS

1. What objections can be raised to a daily free-play time "clocked" to thirty minutes?
2. What advantages and what disadvantages are there in having the kindergarten children use the school gymnasium for their free play?
3. What advantages and what disadvantages are there in having one or more pieces of big-muscle apparatus in the main kindergarten room?
4. Describe the activities of the doll corner when it is being used for free play; when it is being used for work period.
5. Give all the reasons you can for expecting a kindergarten teacher to be on the playground if her children are playing there.

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Library and Story Time

THE library and story periods in the kindergarten attempt to give the child.

1. An opportunity for sharing pleasure of the highest type.
2. Frequent experiences in taking different parts in the group, i.e. leader, director, listener, observer, contributor.
3. An appreciation of good literature.
4. A respect for books and a technique for handling books.
5. An opportunity to build a strong foundation for first-grade reading.
6. A fund of general information.
7. An opportunity for guided flights into the world of fancy.

The Kindergarten Library. The word *library*, spoken in connection with the kindergarten, no longer refers merely to a possible kind of dramatic play; rather, it indicates an integral part of the kindergarten setup. With the publication, in the last twenty years, of hundreds of books written very definitely for the child who has not yet learned to read, or who is just beginning to read, a section of the kindergarten room has been given over to the library. Some kindergartens are more fortunate than others in the number of books of which their libraries can boast; but no kindergarten library, particularly since the advent of many excellent picture storybooks selling for ten and fifteen cents, need be without a variety of good books.

Library Setting. The library ought to have something about it, aside from the books, which distinguishes it from other parts of the room. If the table used can be quite different from the other tables in the room, that alone will help to make the library a very special place. Often a round table is used, making a very definite contrast to the



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This Balcony Library Affords a Quiet Retreat from the Activities on the Main Floor.

square or oblong ones used for work. A hexagonal table is to be preferred even to the round table for the reason that it seems to give more space for opening out the large picture books.

It is desirable also to have the chairs used in the library quite distinctive. If it is possible to buy wicker chairs with gay upholstery especially for the library, these will add comfort, color, and character to the setup. If the chairs which are already in the room are the only available ones, then the addition of slip-back covers and seat covers of attractive materials will give these same chairs a distinctive appearance.

There must, of course, be a place in which to store the books. A rack similar to the kind used in public libraries for magazines has the advantage of permitting the book cover with its picture to be visible at all times. Since the kindergarten child must identify his book by the picture this is a most desirable feature. The low open bookcase, however, is rather more attractive in the room, and if there is sufficient shelf space to permit the books to be taken out and replaced with ease, the children will not find it too difficult to locate the desired book. At first the number of books found in the shelves will be few. As the year progresses and the interests of the group develop, more and more books will be added. Some books which are seasonal in their interests will be on the shelves for a few days or a few weeks only; others after they have once been added will remain on the shelves for the entire year.

Types of Books for the Kindergarten Library. Though the kindergarten child cannot read for himself, as a general thing he demands that there shall be printed material in his books. The nursery-school child is often satisfied with a picture book, but not so the kindergarten child. In one or two unusual picture books, the pictures follow the action of the story so closely and have such storytelling value that the child is induced to make up and tell the story as he turns the pages. *What Whiskers Did* (see ref. 20, p. 218) is a book of this type.

From the child's point of view, a picture¹ is more interesting if it is gaily colorful, full of action, and free from distracting details. Photographic illustrations seem to be more interesting to adults than to children. Silhouette pictures are confusing to young children; monotone and line pictures are satisfying but not intriguing. The young

¹ Freeman, G. L. and R. S., *The Child and His Picture Book*, Northwestern University Press, Chicago, 1933.

child is highly critical of the picture which is not in exact accord with the text.

In spite of the fact that the kindergarten child does not read, he is beginning to take an interest in printed words. For that reason some thought should be given to the size of the print used in the picture storybooks. In general it may be said that the print should not be smaller than fourteen point and probably not larger than eighteen or twenty point. If manuscript or script is used in picture storybooks, the essential thing is that it must be clear in outline and letters, with words and lines well spaced. It is desirable that the page background should be a dull, grayed white and that on or opposite every page on which there is text, there should be an illustration. For the youngest kindergarten children a two-to-one proportion between text and picture seems to be entirely satisfactory.

The size of the book which is most enjoyed by young children is still a much debated question. It is quite probable, however, that in our eagerness to supply large play equipment in general we have more or less forced upon the child a book which is really awkward for him to handle. The book which measures eight and one-half by seven and one-half inches and opens on the shorter side is handled with ease by kindergarten children. While both smaller and larger books are enjoyed for variety's sake, yet it would doubtless be well if the majority of the books were about the size mentioned above.

The subject matter of the books found in the kindergarten library will vary greatly according to the background of the children in the particular school district. It may be suggested, however, that books bearing on the following interests should appear on the shelves sometime during the year:

Mother Goose rhymes and folk tales

Experiences of children and animals

Imaginary adventures of animals, toys, children, and other creatures

Information about nature—stories about animals, birds, bees, frogs, etc.

Information about mechanical things—trains, boats, steam shovels, etc.

Information about the community and community helpers—stores, policemen, firemen, mailmen, etc.

Library Activities. In some kindergartens there is a ten- to fifteen-minute period definitely scheduled as a library period. During this time all

the children are expected to be engaged in looking at books. Sometimes a child will sit by himself to enjoy his book, at other times he will get pleasure out of sharing his experience with a friend or a small group of friends. The children usually pass running comments on the pictures as the pages are turned. If a particular book is a favorite with the group, then it often happens that the children will gather around the child who holds the book, and the child holding the book will, by popular acclaim, become the storyteller.

Frequently there is no definite time set aside in the kindergarten for the use of the library, but the children are free to look at the books during the play period or at any other time during the day when they have a bit of leisure.

At all times the children are encouraged to exercise care in handling the books. It is not too much to expect kindergarten children to exercise judgment as to when their hands are or are not clean enough to handle books. It is not an unusual thing to see a kindergarten child sit down at the library table and then get up immediately in order to wash his hands before using a book. If a child finds that the pages of a book have been torn or if by chance a particular child has the misfortune to tear a page, he is encouraged to report the fact and to set the book aside so that it may be repaired before further damage is done. That all may enjoy the library equally, the children in the library or in the vicinity of the library may be expected to show due respect for the rights of others. Loud conversation, the hoarding of books, and unnecessary moving about are all discouraged. When a child has finished looking at a book he may be expected to put it back on the shelf or in the rack so that either the back binding or the picture cover is in evidence.

The Story Hour. The first story hour may well grow out of a library experience. In compliance with a request to "read this," the teacher may sit down beside the child to tell or read the story in the book which the child offers her. When others in the group note that a story is being read aloud, they will be eager to gather about to listen. As the group grows, it will be increasingly difficult for all the children both to see the pictures and to hear the story. A suggestion about sitting down may be quite in order at the time. Chairs can be used, but the simplest procedure is to have the children seat themselves on

the floor. When the teacher is assured that everyone is comfortable, she may either continue her story or, better yet, start it again from the beginning.

Reading vs. Telling Stories. Before the appearance of the many attractively illustrated children's books, the teacher found it distinctly more desirable to tell than to read the majority of her stories. It is still well for every teacher to have many stories at her command for telling, but if the book with its attractive illustrations is at hand, it is probably stupid not to let the children enjoy both the pictures and the story. Not all, in fact few, kindergartens can claim to have complete libraries. A teacher, therefore, who can tell stories can give to her group stories of which they might be deprived if they were to rely solely on the books at hand.

There are some stories which are much better told than read under any conditions. Many of the old folk tales and some of the very simple realistic stories of the "here and now" type lose a great deal of their charm if they are read. The story which is told has always the advantage of creating a more informal and friendly atmosphere and affording the teacher the opportunity of making a direct contact with her group. This direct contact and the freedom achieved through it help the teacher to sense and feel out the mood of her group so that she can better adapt her manner of telling to that group mood. Both facial expression and gesture may be used more freely if the story is being told rather than read. Children get a great deal of enjoyment out of watching as well as listening to the storyteller. This last point is particularly clearly brought out upon occasions when the teacher operates a delineascope and tells the story at the same time. In spite of the fact that the pictures are interesting and quite in keeping with the text, the children will frequently turn to watch the teacher as she speaks.

The story read has the advantage of always presenting to the children an example of well-chosen English and of building up in the child's mind a connection between stories and books, books and reading. This association which is built up does much to create an interest in reading. The mere act of watching the teacher read helps the child to build reading habits. The child learns among other things that the line is read from left to right, that the page is read from top

to bottom, and that pages are turned singly or run through quickly, as the case may necessitate. Frequently the child's attention is called to particular words on the printed page or to the general make-up of the book, index, page numbers, chapters, etc. It is probably safe to say that both the story told and the story read have their own special function and that neither ought to be used to the exclusion of the other. The proportion of stories told to the number of stories read will depend chiefly upon the size of the kindergarten library.

Techniques of Preparing the Story. Whether the story is read or told, the teacher ought to be so familiar with the sequence of events that the whole will move smoothly. In preparing a story to read or tell, the teacher ought first to read the story over just for her own enjoyment, then she ought to try to recall the various events in the story so that in presenting the story she may always have in mind the event or incident to which the present part of the account is leading. If the story is to be told without the text, the storyteller ought to know the outline of her story and a few of the choice words of the text along with any rhyming jingles; but beyond that it is probably better for the teller to rely upon her own ingenuity to present the story. Nothing is more disappointing than to have a perfectly good story cut short or broken into simply because the teller cannot recall the next sentence or the next word. It is well to practice either reading or telling the story to an imaginary audience, or better yet to a single child of the age to which the story is adapted.

Techniques of Presenting the Story. While it seems a bit more friendly and informal to tell stories to small groups of kindergarten children, yet a study¹ on the relation of the size of the group to the amount of the story retained by individuals has brought to light the fact that the size of a group has little to do with children's ability to enjoy and retain the facts of the story. Neither the number of children in the group nor the child's position in the group seems to have any real effect upon the amount of the story which is grasped by the child. The teacher, however, should be careful to see that the child who is hard of hearing or who has poor eyesight is well up in the front of the group. When the

¹ Dawe, H. C., "The Influence of Size of Group upon Performance," *Child Development*, 1934, 5:295

teacher is assured that all the children are comfortably seated, either on chairs or on the floor, then and not until then should she attempt to begin her story.

A deliberate telling, with pauses judiciously inserted, is greatly to be preferred to a rapid telling. A few natural gestures may be added to the story, but the teacher must always keep in mind the fact that she is telling and not dramatizing the story. The gestures should be suggestive rather than realistic. It is well to have the voice pitched just low enough so that the children will have to pay strict attention in order to hear. The teacher who screams her story at the group not only wears herself out but by forcing her story upon the children; she tends to antagonize them. At all times the teacher must guard against the use of any unpleasant mannerisms or a storytelling voice. If at any time the teacher feels that she would like to have a check-up made upon her own mannerisms or voice, she can always do so readily by listening to the children as they retell or "read" the stories for themselves. Children are remarkably good imitators!

Interruptions are bound to come in one way or another, particularly early in the year. A whole story hour may be ruined if the teacher does not know how, tactfully, to meet outbursts of relevant and sometimes irrelevant remarks. The teacher must learn to meet these interruptions firmly but in such a way that the children will not feel themselves coldly rebuffed. The children ought to be led to understand that their contributions will be welcomed when timely. Sometimes an understanding glance or nod in the direction of the child who is about to burst forth will take care of the situation. At other times a long, almost audible pause on the part of the storyteller and a resultant request from the group to have the story continued will forestall further interruptions.

It is not the audience alone which does the interrupting. At times the storyteller herself falls into the habit of interrupting her own story. It adds nothing to the story to have the teller stop to throw out questions or to have her digress in the way of explaining new words. The questions might better be omitted and the new words, if they cannot be grasped from their connotation, might well have a synonym or two used in conjunction with them. If for one reason or another the teacher does find it necessary to interrupt her story to speak to a particular child, she ought to apologize to the group for the interrup-

tion, making it clear to them that she herself not only regrets but disapproves of the interruption.

The picture storybook which has an illustration on every or nearly every page offers a problem. Some feel that the picture should be shown before or after each page is read, and others are of the opinion that the story should be read or told to the end before the pictures are shown. Though either of these techniques is usable, yet it would seem more natural if the children could enjoy both the text and the illustrations at the same time. With a little practice and sufficient familiarity with the story, the teacher can manage this. The teacher can hold the book somewhat to the side and in front of herself. The children can then see the illustrations as the pages are turned, and the teacher, by glancing occasionally at the text, can proceed with the account. If the book is tipped forward slightly, it will enable the children to see the illustrations better. Incidentally the angle at which the book is held is really a guide to the sitting position of the group. If the book is tipped backward, the children will have a tendency to stretch or rise up to see the picture; whereas if the book is tipped well forward, the children will find that it is to their advantage to remain seated while the story is being read or told.

Children's Storytelling. Too often the teacher feels that the responsibility or the privilege of telling the story is hers and hers alone. Kindergarten children not only enjoy but profit by retelling and originating stories. At times the teacher may make it a special point to impress upon the group that a story from the children would be appreciated by both the children and herself. It is probably not quite fair either to the teller or to the audience to ask a child, unless he is one of the rare artists at storytelling, to tell to the group a story with which the group is already familiar. Often, as suggested in Chapter XVII, the children may share with the group stories which they have heard outside the kindergarten. Original stories may be encouraged and stimulated by asking the children to make up or tell of dreams. The dream story allows for unbounded flights of the imagination. There should be a distinction made between the story that really happened or might happen and the imaginary tale. Wooden figures of characters from several familiar stories—*The Billy Goats Gruff*, *The Three Bears*, *Little Black Sambo*, etc.—may be set out to en-

courage the children to make up new stories in which the familiar characters may appear. Picture books, with either poor or foreign texts, offer an inducement for original story contributions. Even the child who lacks imagination seems to feel that making a text for a book is a worthy cause.

Dramatization of Stories. Kindergarten children enjoy dramatizing, or as they say "playing the story." The first dramatizations are very simple; often a long story such as *The Three Bears* consists of nothing more than the bears discovering their tasted porridge and routing Goldilocks. As the year progresses and the group activities become more organized, plans can be laid for more detailed dramatization. Stories should be dramatized in the kindergarten chiefly for the enjoyment which the occupation affords the children. An audience will help the children to raise the standards of their performance, but a program which is worked up solely for an audience often defeats its own purpose. From the point of view of the values to be derived from dramatization it is well to work out the play informally and then to present it to an audience simply in the belief that the audience too will enjoy that which has been enjoyed by the group.

Stage properties need not be elaborate; the children's imagination can do much to supply missing effects. A box of odds and ends, including among other things a basket, a shawl or apron, a man's cap, a pair of "ears," and a "tail" or two will do much to stimulate dramatization. Other effects in the way of costumes or stage properties of which the children may feel the need may be evolved by the children themselves. Elaborate costumes designed and made by the mothers or the teacher are not necessary to kindergarten dramatizations.

The following, in the way of rhymes and stories, lend themselves well to dramatization.

Nursery rhymes—Jack and Jill; Jack Be Nimble; Little Miss Muffet; Hickory, Dickory, Dock; and Little Jack Horner.

Stories—*The Three Billy Goats Gruff* (92),* *Little Duckling Tries His Voice* (93), *The Three Bears* (92), *The Story of Dobbin* (91), *The Three Goats* (92), *The Little Wooden Farmer* (26), *Whiffy McMann* (48), *The Poppy Seed Cakes* (22) (91), and *One Little Indian Boy* (14).

* The numbers refer to references on pages 217 to 221

Poetry. To set aside a period in the day for poetry and to read, memorize, and check the poems which each child has memorized is to approach the whole field of poetry from the wrong angle. It is putting poetry and the learning of poems merely on a drill level. Poetry ought to mean much more than the memorizing of words or even ideas. Poetry can scarcely be said to belong to any specific period in the day. Though it is often written in story form, yet it does not truly belong in the story period. To be thoroughly appreciated and enjoyed by the group, poetry must be presented when it seems to summarize or epitomize a group experience. If, for example, the children, after raking and cleaning the yard in the fall, have settled down to watch the bonfire made of the dried leaves and debris, then, and not at some later hour, is the time to introduce a poem such as Stevenson's "Autumn Fires" (52) (87). Poetry is often introduced during a conversation or discussion period for the reason that at that time the group as a whole is thinking to a purpose along one particular line.

Children like the "feel" of poetry, and they will frequently join in as the teacher reads or recites the poem. If a poem is really appreciated and enjoyed by the children, they make short work of memorizing it. Poems which have already been introduced or those which have been memorized may profitably be reviewed at the beginning or end of the story hour; but if poetry is substituted for the story itself, the children are apt to express their disappointment frankly.

Part of the beauty of poetry lies in the pattern presented as a whole, and for this reason it is well to encourage the children to listen to the poetry as though they were listening to music. If there are interruptions in the reading or reciting, it is well to start again from the beginning so that the children can get the feeling of the whole pattern.

Children's own poetical expression is often worthy of recording. However, unless these poetical expressions are woven into a pattern by some poetry-minded adult, they are seldom more than refreshing and unique phrases. Rhyming jingles such as "I see the man, the man has a pan" which the older kindergarten child enjoys creating, may often serve as pre-phonetic work. The rhymes to be found in many books will do much to stimulate kindergarten children to an interest in rhyming sounds.

Finger Plays. Finger plays are not to be confused with poetry. Finger plays are usually nothing more than rhyming jingles accompanied by finger dramatization intended to amuse and hold the attention of the children for short periods of time. They have their place in the kindergarten sometimes as games and sometimes as one of the many devices which help to oil group machinery. In the early part of the school year they are sometimes substituted for poems, but they in no sense take the place of poetry. Few lay any claim to real literary value. A few finger plays which may be used as games or devices are listed below:

1. Here's a ball, (Small circle made with thumb and index finger of one hand.)
 And here's a ball, (Larger circle made by using both thumbs and index fingers.)
 And a great big ball I see. (Huge circle made by using both arms.)
 Shall we count them? Are you ready?
 One! Two! Three! (Each of three circles is made as counted.)
2. Two little houses all closed up tight! (Fists closed, thumbs closed in.)
 Open up the windows and let in the light. (Fingers and thumbs stretched.)
 Ten little finger people tall and straight, (Palms to the front, fingers erect.)
 Ready for kindergarten at half past eight. (Fingers erect, hands and arms move jerkily forward.)
3. Two tall telegraph poles, (Index fingers erect.)
 Across them a wire is strung, (Points of middle fingers touching.)
 Two little birds hopped on, (Thumbs touching "wire" made by middle fingers.)
 And swung and swung and swung. (Finger position held, arms swung.)
4. These are my great sun glasses, (Circles made around the eyes with thumb and index finger of each hand.)
 This is my great sun hat. (Hands placed over head, forming pointed hat)
 This is the way I fold my hands, (Hands clasped in the air.)
 And rest them, just—like—that! (Hands relaxed and resting on lap)

Selection of Stories, Picture Storybooks, and Poems. Just as surely as there is a field of literature for high-school students, so there is a field of literature for kindergarten children. In making a selection of

the literature, the teacher must try to include the best of the old, tried, and tested materials and a wise sampling of the more recent publications. The lists which follow are suggestive of the stories, picture storybooks, and poems which might be incorporated into the program of the kindergarten year

STORIES AND PICTURE STORYBOOKS

1. Mother Goose Rhymes and Folk Stories
Mother Goose (3) (43) (88) (95)
"Answer Three Questions If You can"—see phonograph record
"Elves and the Shoemaker, The" (92)
"Gingerbread Man, The" (18)
"Little Fir Tree" (18)
"Little Old Woman and Her Pig, The" (18) (92)
"Long-Name-No-Can-Say"—see phonograph record
"Scarefoot" (92)
"Story of Epaminondas, The" (18)
"Story of the Three Little Pigs, The" (92)
"Three Billy Goats Gruff, The" (92)—see also phonograph record
"Three Goats, The" (92)
"When the Husband Kept House"—see phonograph record
2. Experiences of Children and Animals
A B.C. Bunny, The (39)
Amelias-Annie and the Green Umbrella (49)
Angus and the Cat (34)
April's Kitten (73)
Augustus (11)
"Billy, My Horse" (68)
Choosing Book, The (25)
Fix the Toys (53)
Greedy Goat, The (13)
"How Spot Found a Home" (69)
Kangaroo Twins, The (51)
Little Boy with the Big Apples, The (70)
Mac Goes to School (100)
Make Way for Ducklings (65)
Merry Mouse, The (31)
"Mis. Tabby Grey" (64)
"New Shoes" (4)
One Little Indian Boy (14)
"Paddy's Three Pets" (91)
"Pedro's Feet" (69)
Peggy and Peter (94)
Pelle's New Suit (9) (91)

- "Peter, Please! It's Pancakes" (68)
- Petunia Be Keerful (21)
- "Picnic Basket, The" (22) (91)
- Prayer for a Child (32)
- Snipp, Snapp, Snurr and the Big Surprise (62)
- Snipp, Snapp, Snurr and the Red Shoes (63)
- Story of Ping, The (36)
- There Was Tammie (17)
- Twins and Tabiffa, The (50)
- Wallie the Walrus (98)
- What Whiskers Did (20)
- Whiffy McMann (48)
- Yard for John, A (23)
- 3. Imaginary Adventures of Toys, Animals, Children, and Other Creatures
 - All about Copy Kitten (30)
 - "Ask Mr. Bear" (93)
 - Brownies—Hush! (1)
 - Curious George (82)
 - Five Hundred Hats of Bartholomew Cubbins—see phonograph record
 - Funny Thing, The (40)
 - "House in the Tree" (4)
 - "In Which a House is Built at Pooh Corner for Eeyore"—see phonograph record
 - Little Black Sambo (6)
 - "Little Duckling Tries His Voice" (93)
 - Little Toot (45)
 - Little White Teddy Bear, A (84)
 - Little Wooden Farmer, The (26)
 - Magic Michael (85)
 - "Merry-go-round and the Griggses, The" (93)
 - Millions of Cats (41)
 - Olle's Ski Trip (8)
 - "Pony Tree, The" (93)
 - "Poppy Seed Cakes" (22) (91)
 - Red Horse, The (71)
 - Runaway Bunny, The (16)
 - "Sad Snow Man, The" (68)
 - "Sojo" (93)
 - Story of Ferdinand, The—see phonograph record
 - Tale of Peter Rabbit, The (77)
 - Timid Timothy (99)
 - Timothy Turtle (28)
 - "Two Little Shoes" (93)

- Wee Gillis—see phonograph record
 When the Root Children Wake Up (33)
 Willy Nilly (38)
4. Information about Nature
 Animals Everywhere (27)
 Country Noisy Book, The (15)
 Hi-Ho for the Country (42)
 Little Gardeners, The (29)
 Restless Robin, The (35)
 Tim Tadpole and the Great Bullfrog (37)
 Whose Little Bird Am I? (97)
5. Information about Mechanical Things
 Airplane Pilot, The (60)
 Bus Driver, The (61)
 Little Auto, The (57)
 Little Train, The (59)
 Pogo's Train Ride (74)
6. Information about the Community
 Anybody at Home? (81)
 Billy's Letter (78)
 Delivery Man, The (55)
 Farmer in the Dell, The (46)
 I Live in a City (90)
 Jip and the Fireman (79)
 Little Farm, The (58)
 Little Stone House, The (47)
 Mike Mulligan and His Steam Shovel (19)
 Mr. Brown's Grocery Store (80)
7. Holiday Stories
 Halloween
 "Hallowe'en in the County" (24)
 "Hallowe'en Story, The" (24)
 "Jack o' Lantern, The" (56) (91)
 Pumpkin Moonshine (96)
 Thanksgiving
 "First Snow" (24)
 "Thanksgiving Day" (12)
 "Wee Pumpkin's Thanksgiving" (10)
 Christmas
 Christ Child, The (74)
 "Happy Christmas Tree, A" (93)
 "Little Blue Dishes" (91)
 Little Engine That Could, The (76)—see also phonograph record
 Night Before Christmas, The (72)
 "Story of Dobbins" (91)

Easter

"Frosty Easter Eggs" (24)

"Mr. Easter Rabbit" (5)

St. Valentine's Day

"Little Miss Muffet's Valentine" (10)

"Many Valentines in One" (24)

"Valentine with Whiskers, A" (24)

8. *Finger Plays*

"First Is the Father" (86)

"Five Little Soldiers" (86)

"Five Little Squirrels" (86)

"Here Is the Bee Hive" (75)

"Jack in the Box" (86)

"Mother's Knives and Forks" (75)

"Two Little Black Birds" (75) (86)

9. *Poems, Old and New*

"April Fool" (44) (52)

"Autumn Fires" (52) (87)

"Baby Seed Song" (89)

"Brooms" (2) (52)

"Bundles" (44) (52) (54)

"Caterpillar" (44)

"Catkin" (44) (52)

"Disobedience" (67)

"Early" (2)

"Elf and the Door Mouse, The" (52) (89)

"End, The" (66)

"Fairy Went A-Marketing, A" (7) (87)

"Faithless Flowers, The" (89)

"Fishing Pole, The" (52)

"Fog" (52) (87) (89)

"Frozen Milk Bottles" (44)

"General Store" (7) (87)

"Have You Watched the Fairies?" (89)

"Hens, The" (7) (89)

"Hiding" (2) (7) (87)

"Ice" (2) (52) (87)

"Icicle, The" (54)

"In September" (52)

"In the Fashion" (67)

"Jack Frost" (52)

"Lines and Squares" (67)

"Little Elf, The" (52) (54) (89)

"Little Turtle, The" (52) (87) (89)

"March Wind" (52)

- "Market Square" (67)
- "Missing" (67)
- "Mrs. Peck Pigeon" (44) (87)
- "My Valentine" (44)
- "My Zipper Suit" (44)
- "Once There Was a Snowman" (52)
- "Owl and the Pussy Cat, The" (7) (52)
- "Radiator Lions" (2) (7)
- "Rain in the Night" (89)
- "Rainbow" (52)
- "Sleepy Song, The" (89)
- "Sneezles" (66)
- "Snow" (Marshmallow Hats) (2)
- "Snow" (44)
- "Static" (52)
- "Swing" (52)
- "Trains" (52)
- "Tugs" (52)
- "Whisky Flisky" (44) (52)
- "Wind, The" (52)
- "Winter" (2)

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Victor Y-8

Three Billy Goats Gruff—folk story—told by Gudrun Thorne-Thomsen

Answer Three Questions If You Can—folk story—told by Gudrun Thorne-Thomsen

Victor Y-314

When the Husband Kept House—Norwegian folk tale—told by Gudrun Thorne-Thomsen

QUESTIONS AND PROBLEMS

1. Why should the library of a kindergarten have a setting which is different from that of the rest of the room?
2. If there is a school library room or a branch of the public library in the building, would it be desirable for the kindergarten children to go there for their period with books?
3. Ask a five-year-old to name his favorite story or stories. Where in the classification given on pages 213 to 217 do these appear?
4. Try reading and try telling a story to a group of two or three young children. Which is easier? Why?
5. Why not have a daily ten-minute period for poetry?

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Singing Through the Day

IN THE singing period the kindergarten attempts to give the child opportunities to:

1. Hear and enjoy good vocal music.
2. Enjoy and learn how to control his singing voice.
3. Enjoy the experience of ensemble singing.
4. Express his feelings and thoughts in song.
5. Build up a repertoire of songs.

There are comparatively few individuals who have the ability to sing on a professional level; but practically every individual, unless he suffers from some organic difficulty, can be taught to sing satisfactorily and enjoy music.

The song period in the kindergarten ought to be essentially one of fun and enjoyment. Most children from infancy display an interest and love for music, and the song period can encourage and stimulate them to sing for pleasure. Although it is true that with tremendous pressure the kindergarten child can be taught to use his singing voice with a considerable degree of mechanical skill, such a procedure so reduces the child's pleasure that often much time must be spent in re-educating him to enjoy music. It seems wholly unwise therefore to destroy the child's native enjoyment of music.

It is not to be supposed that when the children sing for pleasure and joy, no effort may be made to improve their own singing ability and their appreciation of good music. The case is quite the contrary. Always the teacher must have in mind a measure¹ of the child's musical accomplishment, and must help him not only to keep up to but, if possible, to raise his own standard of achievement.

¹ Unfortunately this must be a measure based only on her own judgment. No scientific music tests are available for children under age ten.

Through simple enjoyable tone and phrase drill, through suggestion, and through offering delightful examples of vocal music, the teacher raises the standards. At the same time she makes an effort to enrich the child's musical experience and preserve both a spontaneous and a satisfying joy in singing.

The Song Period in the Daily Schedule. There seems to be no uniform time in the daily schedule for the singing period. In some kindergartens it is used as an "opening exercise"; in others it is scheduled for the middle of the session; and in still others it is the last or almost the last period in the day. There is probably no one best time for it, though from various points of view it would seem wiser to have it scheduled for the middle rather than either extreme of the session. If it comes at the beginning of the session it is like eating the frosting of the cake first and if it comes at the end of the session then the children are apt to be too tired to give their best in the way of careful attention and enthusiasm to the period. There are two particular precautions which ought to be taken in scheduling the period. The period ought not to follow a violently active one, since then the children would probably be out of breath, nor ought it either to proceed or follow a long period requiring quiet sustained attention, for the children would then be in need of bodily activity. The song period is not usually more than ten or fifteen minutes in length.

Setup for the Period. In some schools the children are expected to bring their chairs to the piano for the singing time. From the point of view of vocal technique, it is probably better for the children to sit in chairs; but from the point of view of enjoyment, the informality which is achieved by having the children group themselves on the floor is more desirable.

The children who have greatest difficulty in matching tones should be encouraged to sit near the piano. In some school systems, as the year progresses, the teacher is expected to assign each child to one of three or four rows. Those children who are most skillful in matching tones are assigned to a back row and it then follows that the others, in accordance with their own degree of musical performance, are assigned to the rows closer to the piano. If this must be done, some of the original informality may be retained by arranging the rows in a

semicircle. According to Seashore* and others, it would seem that the five-year-olds are at a stage of development wherein the more informal type of musical experience would be most profitable to them.

The piano should be in front of the children and so placed that the teacher can sit at the piano and watch the group at the same time. The piano must be tuned at least once and preferably twice a year. A stringed instrument such as a banjo, guitar, or violin is sometimes used in the song period instead of the piano.

The music books may be kept in an open case at the end of the piano. The teacher should have, either in this bookcase or on the piano, a list of the songs which the children have learned. If the book and page number are recorded here much time will be saved in locating the songs.

Presenting a New Song. When a new song is presented, the children should have an appreciation of the whole melody before beginning to learn either the melody or the words. Sometimes the new song is played through on the piano or hummed through by the teacher the day before it is to be taught to the children.

Using the Teacher's Voice as a Pattern for Teaching the Song. If the teacher is fortunate enough to have a voice which is really musically enjoyable, it is well for her to sing the whole song through to the children without the instrument. Unless the teacher has absolute pitch, she should either use a pitch pipe or the piano for her initial note. After the teacher has sung the song through for the children, she may invite them to sing it with her. Then the teacher and the children will take turns singing phrases of the song to each other. The children will need to listen carefully to the teacher's pattern so that they may repeat it as nearly as possible as it was sung to them.

Using an Instrument as a Pattern for Teaching the Song. The instrument is a poor substitute for the pattern offered by a pleasant singing voice, but it is to be preferred to an unpleasant and perhaps untrue voice.

First the teacher will play the song through from beginning to end, using of course only the melody. Next she will tell the children the

* See reference at the end of this chapter.

story of the song, giving them the exact words of the song but telling it in such a way that it will sound like a continuous story. Then the teacher may ask the children to listen carefully as she plays the melody through once more to see if they can hear any music that seems to tell a certain part of the story. If a child does find a measure or a phrase that matches the story, the children may all sing that bit together. Phrase by phrase, the teacher may present the words and the music; while she plays the music the children may "think" the words, and then when the music is repeated they may sing the words. Then the teacher and the children may take turns singing phrases back to each other.

Tone and Phrase Drill. It is important that the child should get the feeling of matching tones and phrases. This is often achieved by playing certain simple drill games. For example, the children may play an echo game in which the teacher calls a name or a phrase and then designates someone to be the echo to return it exactly as she called it. Sometimes the children play that they are venders selling fruits, flowers, vegetables, or papers, and they take turns calling their wares, trying to think of new and different things to call, but calling them according to a musical pattern, as:



The musical intervals should not be greater, as a general thing, than a fifth. It is easier for the children to match tones in a descending than in an ascending scale.

Encouraging the Use of Light Pleasant Tones and a Smooth Flow of Song. The pattern offered by the instrument or the teacher's own voice can do much to induce the children to use light pleasant tones. If the child finds it difficult to achieve light, clear head tones, it may help him to accompany his vocal effort with bodily movement. Frequently the child is helped to light, clear notes by pretending to toss a ball or balloon into the air as he sounds a high note. Some time should be given at least two or three times a week to helping individuals who cannot seem to sense the pitch. This time may be given either in the music period or during a free-play period.

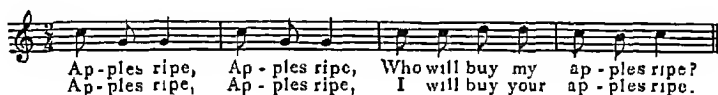
Sometimes it helps the children to get the idea of singing smoothly to diagram with the hand the way the song as sung sounds and the way that it might be sung. For example if the song is rough and choppy the diagram would look like this:



If the song were smooth and flowing the design would be like this:



In order to get the child to sing so that his music will float out upon the air rather than drop to the floor as he sings, the children may dramatize a song such as "Apples Ripe." One child will sell his fruit



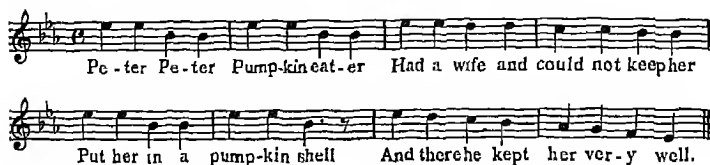
on one side of the street (or room) and another child will be on the other side. If the person on the opposite side of the street can hear what the vender is selling, he will call back his wish to buy. If the person selling can understand that he wants to buy the goods which he is selling, he will sell to him and the play will begin again with the buyer becoming the vender.

A song should be taught at the same tempo at which it is to be sung. Inexperienced teachers are apt to teach the song very slowly and then attempt to speed it up after it has been learned slowly. This necessitates two learnings instead of one.

Original Songs. Children like to play with sounds. The musical accompaniments which they put to many of their activities sometimes find their way into complete miniature songs. As a general thing, however, unless much polished by the hand of a skilled musician, they are not artistically of great value. The satisfaction and the feeling of power which the child gets from the experience is probably all that needs to be taken into consideration in weighing the value of the kindergarten-created melody. It is not usually the form of the song which is satisfying to the child; it is rather the process of creating the song.

In a kindergarten which had been singing many Mother Goose songs, the suggestion was made that the children might themselves make up the music for the Mother Goose rhymes which were not given in their songbook. The following is the music which one of these children suggested for "Peter Peter Pumpkin Eater."

PETER PETER PUMPKIN EATER



Singing in Groups and Singing Alone. A great part of the singing period may be given to group singing. The children may sing as an ensemble, or different groups may take turns singing to the other groups. The children should have much opportunity to listen to those who sing well.

Children who are making a real effort to use true pleasant singing voices ought to be encouraged by being given the privilege to sing to the group. The child with an unusually pleasant voice ought at times to be asked to sing alone so that the group may enjoy listening to clear, true vocal melodies.

Singing Is Not Limited to the Song Period. Because this chapter has dealt with the more formal aspects of a singing period, it is not to be assumed that the kindergarten teacher is not aware of the part which singing plays in the total picture of the kindergarten day.

Nothing can be much more gratifying to the teacher than to hear an individual or a group of children break into song in the midst of work or play. To the teacher that may well be one measure of the desirable social climate. It proves that for the moment at least the child or the children are, figuratively, if perhaps not literally, speaking, in tune with their environment.

Occasionally the child whose musical rendition adds nothing to the formal group-singing period may find himself musically through free experimentation with tones. The teacher will do well to keep her ear

tuned to the spontaneous vocalizations which so frequently accompany the young child's activity. It may lead her to help the child discover his singing voice.

Songs for Children. In choosing songs for young children the teacher must keep in mind the range of the notes. In general the notes should fall between middle C and E above high C. Some research studies¹ have indicated that we have stressed rather too much the upper part of the vocal range.

Besides the pitch and the range, there are certain other rather definite requirements to be met in choosing songs for young children. First, the song must have something to do with the child's experience; second, the song must be simple, with a main idea and a single mood expressed in both music and words; third, the song must be short, with a clear-cut melody running throughout; fourth, the song must be strongly rhythmic, fifth, the song must be truly artistic.

There are two types of songs commonly used in kindergartens. In the one group are found songs which relate in subject to the child's experiences in his own world, songs about birds, trees, flowers, people, play, work, etc. In the second group are found the folk songs which for generations have been the common heritage of children and music lovers alike. The folk songs have a simplicity, a beauty, and a vitality which have made them stand the test of ages.

In the following pages an effort has been made to list some desirable songs to be used with kindergarten children. This list is intended to be merely suggestive of the types of songs which might be fitted into the program of the kindergarten year. The numbers in parentheses refer to books listed in the bibliography, pages 232-233.

SONGS TO SING

Fall

- | | |
|-------------------------------|-----------------------------|
| "Autumn" (2) | "Gay Leaves" (1) |
| "Autumn Leaves" (15) | "In the Woods" (7) |
| "Brown Leaves" (1) | "The Month Is October" (16) |
| "The Brownies" (21) | "Off to School" (12) |
| "Falling Leaves" (2) (6) (16) | "Shake the Apple Tree" (16) |

¹ Jersild, A. T., and Bicnstock, S. F., "A Study of the Development of Children's Ability to Sing," Warwick and York, Baltimore (Reprint from *Journal of Educational Psychology*, October, 1934).

*Singing Through the Day**Halloween*

- | | |
|----------------------------|---------------------------|
| "Brownies and Witches" (2) | "Jack-o-Lantern" (11) |
| "Funny Witches" (2) | "The Jack-o-Lantern" (1) |
| "Halloween" (8) | "Pumpkin Mellow" (16) (8) |
| "Halloween" (6) (16) | |

Thanksgiving

- | | |
|--------------------------------|--------------------------|
| "The Big Tall Indian" (6) (11) | "Thanking God" (2) |
| "The Frightened Pumpkin" (20) | "Thanksgiving Song" (14) |
| "Indians" (21) | "Turkey Song" (15) |
| "Pumpkins" (2) | "Turkey Time" (8) |
| "A Song of Thanks" (8) | |

Winter

- | | |
|--------------------------|-----------------------|
| "Chickadees" (11) | "Snowflakes" (1) |
| "Cold Nights" (1) | "Snowman" (21) |
| "Jack Frost" (8) | "Sparrows" (14) |
| "Jackie Frost" (21) | "The White World" (8) |
| "Jacky Frost" (1) | "Winter" (2) |
| "Little Snowflakes" (14) | "Winter Time" (8) |
| "Snow" (21) | |

Christmas

- | | |
|-------------------------------|------------------------------|
| "Away in the Manger" (1) (13) | "Jingle Bells" (4) (11) (24) |
| (24) | "Jingle, Jingle" (2) |
| "Busy Santa Claus" (12) | "Jolly Santa Claus" (8) |
| "Christmas Bells" (2) | "O Christmas Tree" (13) (16) |
| "Christmas Bells" (3) | (20) |
| "Christmas Bells" (12) | "Santa Claus" (9) |
| "Christmas Day" (9) | "Santa Claus" (3) |
| "Christmas Tree" (12) | "Santa Claus So Jolly" (14) |
| "The Christmas Tree" (8) (11) | "Silent Night" (1) (9) (13) |
| "The Christmas Tree" (2) | (16) (24) |

St. Valentine's Day

- | | |
|-------------------------|-----------------------|
| "Making Valentines" (2) | "Valentines" (12) |
| "My Valentine" (8) | "Valentines" (1) |
| "A Valentine" (21) | "Valentine Song" (15) |

Easter

- | | |
|---------------------------|-------------------------|
| "The Easter Bunny" (21) | "It's Easter Today" (2) |
| "Glad Easter Is Here" (1) | "The Little Bunny" (6) |

Spring

- | | |
|-----------------------------|---------------------------|
| "The Big Black Crow" (14) | "The Spider" (11) |
| "Bobby Redbreast" (3) | "Spring" (21) |
| "Our Garden" (14) | "Spring Is Here" (2) (16) |
| "Pussy Willow" (1) (2) (11) | "Timothy Tim-o" (12) |
| "Raindrops" (20) | "Tirra-lirra-lirra" (9) |
| "Robin Redbreast" (1) | "'Tis Raining" (16) |
| "Robin Redbreast" (14) | "Whippoorwill" (20) |
| "Roller Skates" (8) | "Who Are You?" (9) |
| "Seeds" (12) | "Winter's Past" (9) |

Birthdays

- | | |
|--------------------------|-----------------------|
| "Birthday Greeting" (14) | "A Birthday Song" (6) |
| "A Birthday Song" (2) | |

Animals and Birds

- | | |
|-------------------------------|-----------------------------|
| "Baa, Baa, Black Sheep" (4) | "My Kitty" (21) |
| (13) (19) (24) | "My Old Dan" (3) |
| "Chicks" (14) | "My Pigeon House" (11) |
| "The Cow" (14) | "O Where Is My Little Dog |
| "The Ducks" (10) | Gone?" (2) (4) (13) |
| "The Farmyard" (14) | "Old Mister Elephant" (2) |
| "High Stepping Horses" (16) | "Pony Song" (6) (11) |
| "Little Chickens" (1) | "The Squirrel" (1) |
| "The Little Gray Ponies" (16) | "Three Little Kittens" (13) |
| "Mother Hen" (6) | "What Use Are You?" (6) |
| "My Doggy" (21) | |

Toys

- | | |
|------------------------|----------------------------|
| "The Balloon Man" (12) | "The Rag Doll" (2) |
| "Daddy's Fiddle" (21) | "See How I'm Jumping" (16) |
| "The Dolly" (1) | "The Skipping Rope" (20) |
| "My Drum" (21) | "Teddy Bear" (20) |
| "My Scooter" (22) | "Teddy Bear" (22) |
| "My Tambourine" (6) | "Teeter-Totter" (21) |

Boats, Trains, Cars, etc.

- | | |
|--------------------------------|---------------------------|
| "The Aeroplane" (1) | "The Row Boat" (6) |
| "The Auto" (2) | "Row, Row, Row Your Boat" |
| "The Canoe" (6) | (4) (23) (24) |
| "Down by the Station" (6) (11) | "The Sail Boat" (6) |
| "The Engine" (1) | "The Train" (6) |
| "The Ferry Boat" (6) | "The Train" (21) |
| "The Freight Train" (2) | "The Tug Boat" (16) |
| "Honk! Honk!" (3) | "A Wish" (8) |
| "In the Sky" (12) | |

Lullabies

- | | |
|-------------------|-------------------------------|
| "Cradle Song" (6) | "Night Song" (25) |
| "Go to Sleep" (6) | "Rock-a-Bye, Baby" (4) (13) |
| "Lady Moon" (20) | (23) (24) |
| "Lullaby" (2) | "Sleep, Baby, Sleep" (9) (23) |

Variety of Interests

- | | |
|-------------------------------|---------------------------------------|
| "The Carpenter" (1) | "The Jolly Clown" (21) |
| "The Circus Band" (21) | "Market Man" (6) |
| "The Clock" (3) | "The Moon Must Love Me Very Much" (8) |
| "The Fairies" (21) | "My Cowboy Suit" (25) |
| "The Firemen" (1) | "New Shoes" (21) |
| "Follow My Leader" (10) | "Polly Perkins" (10) |
| "Frère Jacques" (4) (13) (23) | "The Postman" (6) |
| (24) | "The Postman" (1) |
| "The Gingerbread Boy" (6) | "The Scissors Grinder's Bell" (2) |
| "Hippity Hop" (12) | "The Telephone" (2) |
| "Hippity Hop" (21) | "Tick, Tock" (8) |
| "Hop, Hop, Hop" (8) | "Wishing" (3) |
| "I Saw Three Ships" (18) (23) | "Yankee Doodle" (13) (24) |
| "Jacky Stand Still" (10) | |

Nursery Rhymes

See (4) (11) (17) (19) (23) (24).

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PHONOGRAPH RECORDS FOR CHILDREN—SONGS

1. Decca No. A-414
Children's Corner (24 songs in all), sung by Frank Luther (tenor)
A few favorites:

Betty Blue	I Had a Little Pony
The Lock and Key	A Little Pink Pig
The Rats and the Mice	The Cock and the Hen
2. Decca Number 23074-76, Album No. 24, Vol. 2
French Folk Songs sung in French and English
3. Victor No. 4, Vol. 3, Album E-83, sung by soprano
The Frog and the Mouse; The Tailor and the Mouse;
The Frog He Would a Wooing Go, Old English
Mr. Duck and Mr. Turkey; The Chicken; The Daisy and the
Wind, Neidlinger
The Little Shoemaker, Riley—Gaynor

4. Victor No. 3, Vol. 3, Album E-83, sung by soprano
 John-John-Johnny-Davis, Johnstone
 Bed in Summer, "A Child's Garden of Verses"
 Stevenson-Neyin
 Guardian Angels, Schumann
 Golden Slumbers, Dckker, English Lullaby of the 17th Century
 Cossack's Lullaby, (Trans. Anon.) N. Bachmetieff
 Gardens in the Sea, Manx Folk Tune
 Indian Lullaby, Myall—Johnstone
 Sleep, Baby, Sleep. German Folk Song, Arr. Brahms
 Decca No. CU 101; (also CUS 5)
 Nursery Songs, sung by Frank Luther (tenor)

Ba, Ba Black Sheep	Farmer in the Dell
Simple Simon	See-Saw
Little Boy Blue	Pop Goes the Weasel
Georgie Porgy	Three Little Kittens
Jack Sprat	Ring Around the Rosy
Hot Cross Buns	Pussy Cat
Tom, Tom, the Piper's Son	Little Tommy Tucker
Little Bo-peep	Three Blind Mice
Sing a Song of Sixpence	Hey Diddle Diddle
Ding Dong Bell	Pease-Porridge Hot
Fiddle-de-de	Mistress Mary
Mulberry Bush	Hark! Hark! The Dogs Do Bark
Mother, May I Go Out to Swim?	Mary Had a Little Lamb
5. Victor No. J-6
 Winnie the Pooh Songs, sung by Frank Luther (tenor)
 Milne-Fraser-Simson
 Also Decca Album CU 109, by Frank Luther
7. Decca Album CU 101

The Gingerbread Boy
Chicken Licken
(Frank Luther with organ accompaniment)
8. Decca Album A 605
 Songs of Many Lands
9. Decca Album CUS 6
 33 Children's Songs

QUESTIONS AND PROBLEMS

1. Why should a child learn to sing?
2. If it were possible to have a trained pianist come into the kindergarten for the song period; would there be any disadvantages?

3. If you use a phonograph instead of a piano, should the children sing with the phonograph, or should they listen first and then sing alone later?

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XIV

Rhythm and Music Appreciation

IN THE rhythm period the kindergarten attempts to give the child opportunities to:

1. Develop a feeling for and a sense of rhythm.
2. Develop motor co-ordination and grace.
3. Cultivate the power of careful attention.
4. Express creative ideas and moods through bodily movements.
5. Experience the joy of responding as a group to the stimulus of music.
6. Develop social habits which are necessary to group appreciation of music.
7. Listen to and enjoy good music.

One has only to watch a group of children to see that their natural response to music lies in bodily activity. Even the baby sitting in his carriage will bounce up and down and wave his hands when the band passes. The loveliest response of its kind which could be imagined was displayed by a group of children approximately four to eight years of age who had come with their parents to attend an open-air concert on the green at the College of the City of New York. As the vespers program progressed these children began to emerge from and to fringe the group. One by one, there in the summer's twilight, they gave themselves over to the music. Their rhythmic response served not only as needed exercise involving bodily co-ordination, but also as evidence of active appreciation of the music.

It is this active appreciation of the music which we are most eager to stimulate through the rhythm and appreciation period. Whether it is through dancing, or whether it is through experimenting and playing with simple musical instruments, we want the young child first to feel the desire to respond rhythmically; second, we want him

to be able to translate both his own moods and the moods of the music into rhythmical expression.

If we are to build up musical experiences which will take into account the child's innate feeling for music, we must plan our procedure carefully. It may sound logical to begin by directing the child's motor responses to the music and to advance by building up a series of specific responses to particular bits of music. Such a procedure, if given undue stress, would probably crush immediately the child's desire to respond freely and so would defeat the true purpose of the rhythm and appreciation period.

The teacher who is fortunate enough to be able to follow the children's own moods and patterns with her music is in an advantageous position for fostering a true feeling for and an honest appreciation of music. But since there are only a few among us thus favored, this chapter will concern itself with the rhythm and appreciation period as conducted and developed by the teacher of only average musical ability.

Rhythms in the Schedule of the Day. Rhythm time may well follow any one of the more quiet periods of the day. Sometimes it follows the song period, at others a library or story period, and at still others it follows conversation or rest. The first time rhythms are introduced into the program, it is wise to make the period not more than eight or ten minutes in length. Later, as the children become accustomed to some of the social requirements, it may be lengthened to a period of from twenty to thirty minutes. Because of the variety of the activities engaged in during a rhythm period, and because of the diverse moods expressed through the music, the time given over to rhythm and music appreciation is frequently greater than that set aside for other organized activities.

Rhythms and music appreciation need not be limited to one period in the day. Music, like poetry, may be introduced at any time during the day when it would seem to complete a particular group mood or to enrich an experience.

The Setup for the Period. The setup for the rhythm period is comparatively simple. The first requirement is that there shall be plenty of floor space in the room and the second is that there shall be an

instrument to direct the activities. The instruments used vary all the way from so simple a thing as rhythm sticks or the tambourine to the piano or the phonograph. The rhythm sticks and the tambourine are sometimes used for the appreciation of pure rhythm, quite apart from melodies. The phonograph is used as a supplement to piano music or sometimes as a substitute for it. If the kindergarten teacher is a good pianist, the piano is greatly to be preferred to the phonograph, for the teacher can then cut the music or regulate the tempo to the activities of the children. If, however, the teacher is a poor pianist or no pianist at all (a most undesirable situation), she would do well to supply herself with a good phonograph and build up for herself a library of tested records. Some teachers have worked up amazingly successful rhythm and appreciation periods through their very careful study and selection of records and their skill and technique in using the records.

In most kindergartens one finds some instruments on which the children themselves can experiment. Often the child who is too self-conscious to give free bodily response to music will get great satisfaction and an appreciation and feeling for rhythm if he has an opportunity to experiment and play with drums, rhythm sticks, jingle clogs, tambourines, bells, or cymbals. Such instruments as the piano, xylophone, and tuned bottles will give the child the opportunity to experiment with tune as well as with rhythm.

At rhythm time the children are usually grouped on the floor near the piano. The piano must be in such a position that the teacher playing can see the children, not only when they are sitting down, but also when they are responding to the rhythms.

Since many of the rhythms involve a great deal of bodily activity, there should be an abundance of fresh air in the room during the period.

A First Kindergarten Rhythm Experience. At some time during the first day or first days of kindergarten, the teacher will observe during the free-play period that the children are engaging voluntarily in rhythmic activities. It may be that some children are swinging or tectering, or running or skipping, or perhaps just walking about. If at the time the activity is observed, the teacher can sit down at the piano and unobtrusively accompany the dominant rhythmic activity

with a feeling bit of music, she will have given the children their first kindergarten rhythm and appreciation experience. The children will probably leave their activities to listen to the piano, and thus the first rhythm group will be formed.

A First Rhythm and Appreciation Period. When the children have assembled, the teacher may explain why she happened to play the particular bit of music to which the children have been listening. If some children volunteer to repeat the rhythmic activity, then a repetition may be in order; it is quite probable, however, that no one will volunteer to repeat the activity at this first group meeting. If there are no volunteers, the teacher may turn to the piano and play a lively, strongly accented bit of music in four-four time. Not infrequently children will begin to clap in time with the music. In case some children do begin to clap, then a suggestion may be made that all try clapping with the music. If the children do not respond to the music in any way, then the teacher, upon completing the music, may turn to the children and ask them, while the strong rhythm is still in their memory, whether they heard the piano telling the story which her hands are going to tell. Without the music she may clap the rhythm. The children will doubtless feel the rhythm and join in her clapping. As the children join in, the teacher may turn to the piano and accompany their clapping with music. After the children have acquired the feeling of the rhythm with their hands, the teacher may ask if anyone could make his feet tell the same music story which the piano tells. Various demonstrations may be given. The teacher may then ask if anyone has a different way to express the music. Demonstrations such as tapping, swinging the arms, slapping the thighs, and many others may be offered. The teacher must encourage every honest attempt.

Finally the teacher may ask the children whether they could walk about the room and make their feet express the music. A suggestion may be thrown out as to the direction in which they shall circle the room. If the children become confused, as they often do, and go in both directions, then they will immediately see the reason for the suggestion and the suggestion may then become a habit. Once more the children will be asked to walk about the room, this time all in the same general direction.

If the music has been clear-cut and strongly accented, then, when the music stops, the children will stop. The teacher may take this opportunity to compliment the children on the fact that they have really heard exactly what the music has told them to do. They may then walk with the music again, this time giving very particular attention to stopping exactly when the music stops. A signal on the piano such as that mentioned on page 114 will serve to bring the children back to the piano.

A first group experience of this sort will not only give the children the feeling that music has a message and that it is fun to hear the many things which it tells one to do, but it will also have introduced the few rules which are necessary to the group's enjoyment of rhythmic activity. The children will have the idea of listening quietly to music, they will have the notion of going about the room in the same general direction, and they will have learned to stop in place when the music stops.

Raising the Standards of the Child's Response. In order to encourage a feeling and original response to the music, the teacher may observe the whole group in action and then ask a particularly able and responsive child to repeat his performance. The teacher need not suggest that this individual's performance is the best and certainly she ought not to imply that it is the only desirable response to the music. Rather she can suggest that the response seems to give the feeling of the music and that it is the child's own idea. She can assume that the children will enjoy watching the interpretation as much as she has enjoyed it. When next the group performance is repeated with the same music, the unimaginative child will appreciate having some pattern for his response, and better yet, most of the group will be inspired to create new responses, knowing that a premium is placed on original responses.

On some occasions it may be well to use simple rhythm without the accompanying melody in order to help the children sense more clearly the effect of changing tempo, intensity, and rhythm. The teacher, for example, may tap lightly and quickly with the rhythm sticks, and at the same time she may ask if any child can run to her tapping. If she makes the tapping clear and distinct, nearly every child can feel the pulse and run exactly with the music. The teacher



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The Final Chord

may tap slowly and heavily with the rhythm sticks and at the same time ask if any child can walk like a giant to the music. Again the pulse and intensity of music should be so strong that the children can scarcely resist the heavy pounding step of the giant. The tapping may be changed to that suggesting swinging, skating, or rocking the doll, and the children will appreciate the difference in rhythm. Experiences of this kind will lead to the child's finer appreciation and interpretation of melodic rhythms.

If there are children in the group who are loath to enter into the physical activities of the rhythm period, they may at first be allowed simply to enjoy the emotional satisfaction which the music affords them. An effort ought to be made early in the year, however, to get all the children into the activity of the period. The teacher should give particular attention to the child who stays out of the rhythm period and comment favorably when she observes his slightest rhythmic response, such as nodding his head, tapping his foot, or tapping on the seat of his chair with his fingers. If the child seems pleased with this approbation, the teacher may call the attention of the group to the way the music makes this particular child feel.

Sometimes the extremely self-conscious child will enter more wholeheartedly into the activities of the period if he can have the assurance of the support of a second child. Often the teacher asks the child who responds to the music with abandon and ease to choose the less confident child for a partner. The teacher must guard against falling into the habit of expecting particular children to be "lead children." In the first place the rhythm period may degenerate into one in which the group merely follows the pattern of the leaders, and in the second place it is not fair for the child who is thrilled by music always to be hampered by being expected to take in tow a less responsive child.

If the music used for particular activities is changed frequently, the children are led to listen not for certain tunes which may suggest the activity, but to listen to the "make-up" of the music. There are certain specific activities such as running, skipping, galloping, tiptoe dancing, and marching, which will appeal to the kindergarten child throughout the whole year, but in order to assure development and progress, the music used must be increasingly difficult to interpret.

The Kindergarten Band. Children always enjoy experimenting with beating out rhythm and getting different sound effects on band instruments. The instruments, or at least a sampling of the various kinds of instruments, may be kept where they are easily accessible. Much opportunity may be given in the free-play period for experimenting with rhythm and sound.

Kindergarten bands differ greatly. Some bands seem to be little more than an ensemble of pounded-out rhythm. Others seem to be organized chiefly for the gratification of admiring adults. If the band experience is to be musically worth while, the teacher must not substitute costuming and program planning for the true interests of children and music. Much can be done through band work in the way of developing a sensitive musical ear.

As a first step in the organization of the kindergarten band, the children may be asked to demonstrate their ability to respond to the music by clapping. A child who senses not only the rhythm but also some of the feeling of the music may be asked to clap alone to the music. After he has demonstrated his ability to clap, he may be given a set of rhythm sticks and asked to see if he can make the sticks tell exactly the same story which he told with his hands. Other children in turn may demonstrate their ability to clap out the rhythm with their hands and then may be given rhythm sticks.

As other instruments are introduced, the teacher may ask the children to suggest which instrument would best give the feeling of the music being played. For example, light "fairylike" music would best be accompanied by bells and tambourines, while heavy elephant music would call for such instruments as castanets and Chinese drums.

With practice and emphasis laid on intelligent listening, the more advanced kindergarten children can learn to choose the instruments which would best give the feeling of the different parts or phrases in the music. To illustrate this point, let us consider which instruments might be selected to accompany the old French folk song "Frère Jacques."* The first two phrases may well be accompanied by the Chinese drum or castanets, the next two by jingle sticks, the next two by bells and the last two by the Chinese drum or castanets. While it

* See reference, p. 232.



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Five-Year-Olds Enjoy Experimenting with the Piano.

is sometimes helpful to develop band interpretations around songs, yet as a general thing it is better for children to learn to be guided by the music rather than by the words of the song, for as Schumann has said, "music must stand on its own." There is some question as to whether the kindergarten band is or is not complete without a child leader to wield the baton. In many kindergartens the leader with his baton is leader in name only, the children actually follow the lead given by the piano and the baton serves only as another device for rhythmic expression. If there is to be a child standing in front of the group beating out the time, the teacher must make sure that that child is really feeling the music and not just aimlessly waving the stick. Although there is, of course, a definite technique¹ for the use of the baton which may be taught to the children, in many cases it is quite as well to leave this technique for a later age.

INSTRUMENTS NEEDED FOR A GROUP OF TWENTY CHILDREN

4 pairs of rhythm sticks	3 jingle sticks	1 pair of cymbals
4 rattles	2 tambourines	1 triangle
3 bells	1 castanet	1 drum

SEATING ARRANGEMENT FOR THE KINDERGARTEN BAND

Left	Center	Right
Castanet	Drum	Cymbals
Triangle	Tambourines and bells	Jingle sticks
Rhythm sticks	Rattles	Piano

Creative Instrumental Music in the Kindergarten. Children of kindergarten age enjoy experimenting and playing with melody. A xylophone, a set of chimes, or a row of tuned bottles suspended on a frame offer themselves as excellent experimental material. Since the child usually accompanies his created melodies with song, the range of the melody is not likely to be great. In order to preserve the melodies, the notes of the scale may be numbered, one indicating the first note in the scale. An original melody might read thus:

5 1 5 1 5 3 5
Ding dong, ding dong, Hear my bell

¹ The technique for beating out the time is as follows. Two-four time is directed by holding the baton high, bringing it down on one and raising it on two. Three-four time is directed by bringing the baton down on one, out to the right on two and up on three. Four-four time is directed by bringing the baton down on one, half way up and across the body on two, out to the right on three, and up on four.

Though the piano is a very complicated instrument, yet many kindergarten children get great satisfaction and pleasure in figuring out and originating simple tunes on it. The children may be expected to use a reasonably light touch and to listen to the sound effect which their playing produces. If the teacher will lend an appreciative ear to the interesting tone combinations which the child chances to produce, then this alone gives the child encouragement to seek further interesting tone combinations. Occasionally a child can be helped in his own appreciation if the teacher points out the fact that an agreeable sound may be effected by putting down two keys, leaving an intervening key untouched; e.g. 1-3 or 2-4. Or it is thrilling to the child to discover that the first two phrases of "Frère Jacques" can be achieved by putting down in order just three keys, e.g. 1, 2, 3, 1-1, 2, 3, 1. When the children arrive in the morning or afternoon, they often take time to experiment on the piano.

The experience which the children get in this play and experimentation on a variety of instruments develops an appreciative attitude toward music and gives the children a better understanding of the development of music.

Music Appreciation. Music appreciation for kindergarten children is so closely tied up with vocal, instrumental, and bodily responses to music that it can scarcely be considered apart from these activities. Though in all kindergarten music experiences the children are encouraged to listen intelligently, to distinguish between music of different types and moods and to recognize melodies, yet the child's first response upon having heard a bit of new music is "Let's do it" or "Let's sing it."

A story or suggestion as to what the child may expect to hear in the music may arouse a keen interest in new music. For example, to know that at some time while listening to the phonograph record of "In a Clock Store"* one may expect to hear tiny clocks, large clocks, and even an alarm clock, will be certain to make the child extremely alert and attentive to the music.

At times interest in listening may be stimulated by an air of mystery, a quandary as to what the unknown music has to offer. The

* See list of records at end of chapter.

children may be asked to listen to a single piece of music and then tell rather than show what they saw or what they felt while the music was being played. The "March of the Sleepy-Heads"* by Spaulding, for example, may make the children think of pumpkins rolling along; it may make them think of a giant out for a stroll; or it might even bring to their minds the picture of Old Woman Thaw** sweeping and sweeping away the ice and snow.

Some of our modern music such as the "Warsaw Concerto" *** or "Memories of Childhood" *** may be effectively introduced in this fashion. What the children see and feel in the music depends largely upon what their recent play or story experiences have been.

To be fully appreciated, music, like poetry, must fit a particular mood. A group mood, unless it is developed from a group experience, is very difficult to attain. Pictures are sometimes used in kindergarten as substitutes for actual experiences. To suggest the mood in which the composer himself might have been when he wrote the particular bit of music, may help to establish a fitting group mood. For example, before playing Brahms's "Cradle Song" *** the suggestion that Brahms might have been feeling very comfortable and contented and perhaps a bit dreamy when he wrote his well-known lullaby would help prepare the children for the lullaby music as it is played.

Most children under six years of age will not profit by attending the ordinary public musical concerts, nor even those which are called "children's concerts," "children's symphonies," etc. In the first place, the program is usually too long; in the second place the seats are uncomfortable for children; and in the third place, since the concert hour offers the children no opportunity for vocal or bodily reaction to the music, the children become either bored or overstimulated. A single phonograph record or a few simple numbers played in the kindergarten by skilled people on such instruments as the violin, the cello, the accordion, or the flute will mean more to the children than an hour's concert in a great auditorium.

In order that the kindergarten children may have some experience as part of a concert audience, they may profitably accept the invitation of another group to come into their room to listen with them to

* See reference 2, p. 252.

** Olle's Ski Trip. See reference 8, p. 217.

*** See list of records at end of this chapter.

certain musical numbers offered either by the children themselves or by a visiting artist. The usual auditorium or all-school program is frequently too long for kindergarten children.

Certain children in the group will doubtless enjoy spending more time than others in listening to music. If a phonograph is a part of the room equipment, then it would seem advisable to provide opportunities for the children to use the machine themselves. During a free-play period it is quite possible that one or two or even a small group of children may profit by playing certain records set aside as playtime records. Incidentally this gives the teacher an excellent opportunity to help the children establish social courtesies in regard to the phonograph or the radio. In the first place, those children who have chosen to listen to the music must stay close enough to the machine really to enjoy the music. In the second place, they must keep the music tuned down so that it will not interfere with the pleasure of others. In the third place, the conversation and activities of others in the room must be of such a nature that the music can be enjoyed by the listeners. Would that more grown-ups in our radio age had had some training along this line!

Measuring the Musical Response. A rating scale set up by Helen Christianson¹ suggests that we might obtain some measure of the child's overt appreciation of music if we were to observe and score from one to five the following responses:

1. The children's synchronization of bodily movement with the rhythm of the music
2. The child's social-emotional response as shown in his facial expression, posture, and movement
3. The dance patterns which the child evolves
4. The rhythm which the child incorporates in dramatic play patterns
5. The child's verbal comments indicating his interest in and enjoyment of the musical experience

Selecting Material for Musical Experiences. The music to be used in the kindergarten should be of the best quality. The best of the old and the best of the new should be included in the selection. The

¹ Christianson, Helen, *Bodily Rhythmic Movements of Young Children in Relation to Rhythm in Music*, Bureau of Publications, Teachers College, Columbia University, New York, 1938

music should be simple in character and it should have a strong, well-marked rhythm; it should be varied, and as the year progresses it should be increasingly difficult in rhythm and note values. The melody should be truly beautiful and with its accompaniment should be full of content expressing either a single mood or definitely contrasted moods. While it is desirable that the music should arouse childlike emotions, yet the teacher must guard against overstimulating the child. An exciting, exhilarating bit of music should be followed by music which will tend to induce a calm, contented, quiet response.

In selecting music one must of course consider the ability and past experience of the group. If the children have already had two or three years of group musical experience in the nursery school, they will be ready for more difficult music than will those children who have had no daily group musical experience. Though in general it is true that music skill and appreciation is more an individual than a racial quality, yet certain groups because of their music-loving ancestry (Italians, Hungarians, etc.) might be expected to appreciate, almost from the beginning, music which is a bit more complex than the ordinary.

SELECTED LIST OF MUSIC TO STIMULATE RHYTHMIC ACTIVITY *

Simple Rhythmic Patterns

Walking

"Chorus" (10)	"Soldiers' March" (Schumann)
"Folk Dance" (10)	(3) (6)
"In the Park" (17)	"Tip Toe March" (6)
"Le Pont d'Avignon" (7)	"Walking Song" (3)
"March Militaire" (Schubert) (1)	"Washington's March" (13)
"Passe Pied" (10)	

Running

"The Airplane" (13)	"Pomponette" (10)
"Caterpillar! Caterpillar!" (7)	"Run" (11)
"Gypsy Song" (3)	"Running" (4)
"Let's Run a Little Way" (5)	"The Wind" (7)

Galloping

"Au Clair de la Lune" (7)	"Horses Galloping" (16)
"Gallop" (11)	"The Pony Ride" (7)
"Galloping I" (4)	"The Wild Horseman" (12 Vol.
"Galloping Horses" (5)	I) (3) (13)

* Numbers in parentheses refer to books listed on pp. 252-253.

Skipping

- | | |
|---------------------------|----------------------------|
| "Ballet Music" (13) | "Rustic Dance" (2) |
| "Dance It Merrily" (10) | "Skip" (11) |
| "Etude Op. 75" (19) | "Skipping" (4) |
| "The Happiest Skip" (5) | "Skipping" (12) (14) |
| "Pop Goes the Weasel" (3) | "Thistledown Two Step" (2) |

Jumping and Hopping

- | | |
|-----------------------|--------------------------|
| "Bunnies Hopping" (4) | "Ramene tes Moutons" (7) |
| "Grasshopper" (2) | "The Secret" (13) |
| "Hopping Harry" (17) | "Squirrels" (2) |
| "My Pony" (7) | "Toad Music" (23) |

Skating

- | | |
|---------------|---------------------------|
| "Skating" (2) | "Swing Song" (12 Vol. II) |
| "Skating" (4) | |

Swaying and Swinging

- | | |
|---------------------------|----------------------------|
| "Cradle Song" (13) | "Swinging" (10) |
| "The Pine Tree Swing" (7) | "Trempton Pain, Marie" (7) |
| "Swaying Tree" (11) | "Waltz" (Brahms) (3) |
| "Swing Song" (7) | "Waltz" (Schubert) (10) |

RHYTHMIC PATTERNS SUGGESTED BY DRAMATIC
INTERPRETATIONS

Airplanes

- | | |
|----------------------|------------------|
| "Airplane Song" (16) | "Airplanes" (11) |
|----------------------|------------------|

Balls

- | | |
|-----------------------|-----------------------|
| "Ball Games" (23) | "Bouncing Balls" (11) |
| "Bouncing Balls" (10) | "Rolling Balls" (2) |

Bicycles

- | | |
|---------------------|------------------|
| "Bicycle Song" (16) | "Bicycling" (11) |
|---------------------|------------------|

Birds

- | | |
|--------------------------------|----------------|
| "Fly Away, Little Birdie" (16) | "Swallows" (2) |
|--------------------------------|----------------|

Boats

- | | |
|---------------------------|--------------------|
| "My Boat Is Rocking" (16) | "The Tugboat" (16) |
| "Rowing" (4) | |

Brownies

- | | |
|-----------------|---------------------|
| "Brownies" (10) | "The Squirrels" (2) |
| "Brownies" (21) | |

Clowns

- “Circus Music” (11) “The Jolly Clown” (21)

Ducks

- “The Ducklings” (16) “The Ducks” (8)

Elephants, Giants, Bears, etc.

- | | |
|----------------------------|--------------------------|
| "Dancing Bear" (6) | "Giants" (2) |
| "Elephant Music" (23) | "The March of the Sleepy |
| "The Elephants Go Down the | Heads" (2) |
| Street" (5) | |

Fairies

- "Dancing in the Orchard" (7) "Falling Snow" (6)
"Fairies" (4)

Horses

- | | |
|-----------------------------|-------------------------------|
| "High Stepping Horses" (16) | "The Little Gray Ponies" (16) |
| "High Stepping Ponies" (4) | |

Indians

- | | |
|-------------------------------|---------------------|
| "Dance of the Little Indians" | "Indian Dance" (11) |
| (14) | |
| "The Indians" (20) | |

Rabbits

- “Hop Little Bunny” (16) “The Mail Box” (7)

Reindeers

- "Jingle Bells" (4) "Paladin" (10)

Squirrels

- “Squirrels” (2)

Toys

- | | |
|-----------------------|------------------------|
| "Dancing Doll" (1) | "Jumping Jack" (17) |
| "Dancing Dolls" (11) | "Rocking Horse" (5) |
| "Dutch Doll" (23) | "Tin Soldier" (1) |
| "Hobby Horse" (1) | "Trumpet and Drum" (1) |
| "Jack in the Box" (1) | |

Trains

- "The Song of the Train" (15) "Train Game" (23)
"Train" (3)

MUSIC FOR QUIET LISTENING (APPRECIATION)

- | | |
|----------------------------------|-------------------------------------|
| "Adagio B" (1) | "Prelude in A" (1) |
| "All Through the Night" (7) | "The Shepherd Boy" (1) |
| "Birds in the Woods" (12 Vol. I) | "Sleep, Baby, Sleep" (7) |
| "Christmas Carol" (1) | "Waltz Op. 39, No. 2" (Brahms) (10) |

MUSIC FOR THE KINDERGARTEN BAND

With Strong Accent

- | | |
|--|--------------------------|
| "The Bear Went Over the Mountain" (16) | "Follow the Leader" (17) |
| | "Soldiers' March" (6) |

With Differences in Pitch

- | | |
|---------------------------|----------------------|
| "Happy Little Folks" (17) | "March and Skip" (2) |
|---------------------------|----------------------|

With Differences in Intensity

- "Happy Little Folks" (17)

With Differences in Tempo (contrast the two numbers)

- "Clouds" (4)
 "Le Pont d'Avignon" (7)

With Differences in Phrasing—showing recurring themes

- "Frère Jacques" (see 4, 13, 23, 24 Chapter XIII)
 "Happy Little Folks" (17)

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A Variety of Activities and Interpretations

Marching

Victor No. 1, Vol. 2, Album E-72

March (Alceste)—Gluck
March in D Flat—Hollaender

March (Nutcracker Suite)—
Tchaikovsky
Soldiers' March—Schumann

Victor No. 4314

March of the Little Lead
Soldier

March Militaire

Running, Jumping

Victor No. 3, Vol. 2, Album E-72

Air de Ballet—Jadassohn
Jumping—Gurlitt

Running Game—Gurlitt
Run, Run, Run—Concone

* RCA Victor album numbers are quoted from *Record Library for Elementary Schools* (unbreakable records), 1948.

Victor No. 3, Vol. 4, Album E-74

Country Dance—Weber
Country Dance—Beethoven
Gavotte—Handel

Gigue in B Flat—Corelli
Second Gavotte—Sapellnikoff

Galloping, Highstepping, Skipping, Tiptoe, etc.

Victor No. 3, Vol. 1, Album E-71

Flying Birds; Galloping, Running, Highstepping Horses; Military March; Plain Skip; Skipping Theme; Theme for Skipping, Tiptoe March; Wheelbarrow Motive

—Anderson

Dramatic Interpretation

Victor No. 2, Vol. 2, Album E-72

Boating on the Lake—Kullak
La Bergeronette—Burgmüller
L'Arabesque—Burgmüller
March—Gurlitt
Scherzo—Gurlitt

Skating—Kullak
Tantelle—Saint-Saëns
Walzer—Gurlitt
Waltz—Schubert

Victor 11-8863

Warsaw Concerto—Addinsell

Decca Vol. 2, Album No. 302

Songs from the Veld Vol. II—Sung by Josef Marais

"Ai Ai" the Pied Crow Cry
There Comes Alibama
Jan Pierewiet
Siembamba
There's the Cape Cart

My Heart Is So Sad
Miesfontein
Marching to Pretoria
Train to Kimberley
As the Sun Goes Down

Victor No. Y-12

Let's Play
Train
Elevator
Fire Engine

Telephone
Airplane
Streetcar—Produced by Helen Myers

Victor No. 4 Vol. 1, Album E-77

Memories of Childhood—
Octavio Pinto
Sleeping Time
Hobby Horse

Run Run
Ring Around the Rosy
March Little Soldier

Victor Album, Catalog No. DM1038

Grand Canyon Suite—Grofé
On the Trail
(a) Sunrise
(b) Cloudburst
(c) Painted Desert

Toscanini NBC Symphony

Music for Quiet Listening and Appreciation

Victor No. 1, Vol. 1, Album E-77

Hush, My Babe—Rousseau

Little Sandman—Brahms

Lullaby—Brahms

Victor No. 3, Vol. 1, Album E-77

Badinage—Herbert

Gavotte—Popper

Humoresque—Dvořák

Legend of the Bells—

Planquette

Victor No. 28-0420

In a Clock Store

Victor Nos. 1, 2, 3, 4, Album E-88

Christmas Album

Lullaby—Mozart

Sweet and Low—Barnby

Minuet—Beethoven

Minuet—Paderewski

Rock-a-bye—Traditional

Scherzo from 3rd Symphony—
Beethoven

No. 1.

Under the Stars—Davis-Brown

I Saw Three Ships—English

Traditional Melody

Once in Royal David's City—

Alexander-Gauntlett

Away in the Manger—Luther

I Heard the Bells on Christmas

Day—Gilchrist

No. 2.

While Shepherds Watched

Their Flocks by Night—

Handel

Joy to the World—Handel

It Came Upon the Midnight

Clear—Willis

The First Nowell—Old Carol

Deck the Halls with Boughs of

Holly—Old Welsh Air

No. 3.

O Come, All Ye Faithful—

Portugal

O Little Town of Bethlehem

—Redner

Silent Night—Gruber

Hark, the Herald Angels Sing

—Mendelssohn

No. 4.

We Three Kings of Orient Are

—Hopkins

Birthday of a King—

Neidlinger

Victor Album No. M-639

The Children's Corner

Doctor Gradus ad Parnassum

O Holy Night—Adam

Nazareth—Gounod

The Snow Is Dancing (La
neige danse)

- | | |
|---|---|
| Jumbo's Lullaby (<i>Berceuse des éléphants</i>) | The Little Shepherd (<i>Le petit berger</i>) |
| Serenade for the Doll (<i>Sérénade à la poupée</i>) | Golliwog's Cakewalk—
Debussy-Salzedo |
| Decca Album A 599 | |
| Record No. 29228 | To a Water Lily (<i>Ganz piano</i>) |
| Record No. 23498 | Clair de Lune (<i>Heifetz violin</i>) |
| Decca Album A 483 | |
| Record No. 29224 | Nutcracker Suite
(<i>Waltz of the Flowers</i>) |
| Decca Album | |
| Record No. DU 90022 | Nutcracker Suite (<i>Sung and played by Fred Waring</i>) |
| Decca Album A 322 | |
| Record No. 18366 | Dance of the Mirlitons and the Minute Waltz (<i>Chopin</i>); Meredith Willson orchestra, song selections, Fred Waring |
| Record No. 23726 | Doll Waltz— <i>Tales of Hoffmann</i> |
| Record No. 23768 | Barcarolle— <i>Tales of Hoffmann</i> |
| Record No. 18332 | Evening Prayer— <i>Hansel and Gretel</i> |
| Decca Album A 166 | The Swan (<i>Xylophone</i>) |
| A 162 | Scheherazade (<i>Sinbad at Sea</i>) |
| A 130 | Peter and the Wolf |

Victor Nos. 1, 2, 3, 4, Vol. 3, Album E-79

No. 1.

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|---------------------------|---|
| "Marionettes"—MacDowell | To a Water Lily—"Woodland Sketches"—MacDowell |
| Of Br'er Rabbit—MacDowell | |

No. 2.

- | | |
|---|---|
| March of the Gnomes—
"Christmas Tree Suite"
—Rebikoff | Allgretto Excerpt from "Faust Ballet"—Gounod
March of the Dwarfs—"Lyric Suite"—Grieg |
|---|---|

No. 3.

Toy Symphony—Haydn

No. 4.

- | | |
|--|---|
| Waltz in D Flat—Minute Waltz, Op. 64, No. 1—
Chopin | The Bee—Schubert
Spring Song—Mendelssohn |
|--|---|

Music for Kindergarten Band—Music with Strong Accent

- Victor No. 4, Vol. 3, Album E-73
 Knight of the Hobby Horse—Schumann The Clock—Kullak
- Victor No. 1, Vol. 2, Album E-72
 March—Hollaender
- Victor No. 1, Album E-90
 Amaryllis—Old French Rondo—Ghys Minuet in G—Paderewski
- Victor No. 4, Album E-90
 Rataplan—Donizetti With Castanets—Reinecke
 Sercenata—Moszkowski Shadows—Schytte
- Decca Album A 90 Record No. 23119 Perpetual Motion
 A 537 Record No. 23920 Sousa Marches, Vol. 1
 (Stars and Stripes Forever)
- Decca Album DA 419 Record No. DA 23493
 March of the Toys
- Decca Album DA 437 Record No. DA 23517
 Parade of the Wooden Soldiers

Music Differentiating Pitch—High and Low

- Victor No. 3, Vol. 1, Album E-77
 Minuet—Beethoven
- Victor No. 4, Vol. 3, Album E-73
 The Witch—Tchaikovsky
- Decca Album A 91
 Record No. 23120-23123 Symphony Orchestra
 (Woodwind Family)
- Decca Album A 166
 Record No. 23169 Csardas (Monti, Xylophone)
- Decca Album A 90
 Record No. 23117 In the Village (From the
 Caucasian Sketches)

Music Differentiating Intensity—Loud and Soft

- Victor No. 2, Vol. 2, Album E-78
 Light Cavalry Overture—von
 Suppé
- Victor No. 1, Vol. 1, Album E-77
 Lullaby—Brahms
- Victor No. 2, Vol. 1, Album E-77
 March of the Little Lead
 Soldiers—Pierné

Decca Album A 61

- Record No. 23091 Turkish March
Rondo alla Turca
Record No. 23880 Hungarian Rhapsody (Adler)
or
Record No. 23172 Hungarian Rhapsody
(Detroit Symphony)

Decca Album A 91

- Record No. 23120 Symphony Orchestra
(Woodwind Family)

Music Differentiating Tempo—Fast and Slow

Victor No. 1, Vol. 4, Album E-74 and No. 1, Album E-90

Amaryllis—Gliys

Victor No. 3, Vol. 1, Album E-77

Badinage—Herbert

Decca Album A 89 Record No. 18019 to 18021

Hungarian Dances (All Brahms)

Music Differentiating Phrasing and Recurring Theme

Victor No. 4314 and No. 2, Vol. 1, Album E-77

March of the Little Lead Soldiers—Pierné

Victor No. 25167, and No. 3, Vol. 1, Album E-77

Minuet—Beethoven

Victor No. 1, Vol. 2, Album E-78

Of a Tailor and a Bear—MacDowell

Decca Album A 91

- Record No. 23122 Hungarian Folk Song Fantasy

Decca Album A 61

- Record No. 23091 Turkish March
Rondo alla Turca (Mozart)

Decca Album DA 419

- Record No. DA 23493 March of the Toys (Herbert)

- Record No. 25377 Whistler and His Dog (New)

Decca Album DA 437

- Record No. 3517 Parade of the Wooden Soldiers

*Music Analyzing Ensemble Effects and Featuring
Individual Instruments*

Victor No. 24788

Instrumental Illustrations

Violin, Cello, and Clarinet—with small orchestra

Bruno Reibold, conductor

- Victor Album No. Y-316
 Little Black Sambo's Band—Paul Wing, Narrator
 Victor Y 322
 Pee-Wee the Piccolo—Paul Wing, Narrator
 Victor No. 3, Vol 3, Album E-79
 Toy Symphony—Haydn
 Cosmo DMR 101
 Tubby the Tuba—Victor Jory, Narrator

QUESTIONS AND PROBLEMS

1. What points in the rhythms and appreciation period would help the child to learn to listen carefully?
2. The instruments suggested for the kindergarten band are all of one type. What is it? Why are not other types included?
3. In some kindergartens the children gather for rhythms in a large open space, in others the center of the space is occupied by a table. Are there any possible advantages in the latter arrangement?
4. On the first day of school a kindergarten child asks the teacher what the piano is for. Would this be a good opportunity for beginning a rhythms period? Why?
5. What did Schumann mean by "music must stand on its own"?
6. In some schools the children make musical instruments for themselves. What types would be within the ability of kindergarten children?

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 Garrison, Charlotte G.; Sheehy, Emma D.; and Dalglish, Alice G., *The Horace Mann Kindergarten for Five-Year-Old Children*, Bureau of Publications, Teachers College, Columbia University, New York, 1937
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Games in the Kindergarten

THROUGH games the kindergarten attempts to give the child opportunities to:

1. Experience exhilarant joy.
2. Develop habits of fair play and good sportsmanship.
3. Develop motor poise, good posture, and good health.
4. Quicken sense perceptions.
5. Establish both self-confidence and self-control.
6. Co-operate as an integral part of a group.

Games. If ever we needed those working generalizations which we hope the research people are going to supply for us, it is exactly at this point! There are two points of view in regard to the place of organized games in the kindergarten. Some authorities are of the opinion that the five-year-old is not mature enough in his social development to profit by the playing of group games, they therefore rule out all group games in their kindergartens. Proponents of the other point of view are so thoroughly imbued with the idea that games are a part of every kindergarten child's heritage that they would not let a day pass without providing time for at least two or three games.

To date there seems to be no research strongly in support of either attitude, that being the case, probably the wisest thing for most kindergarten teachers to do is to run a middle course. Let's have games in the kindergarten, but let's not make a fetish of them.

Games best adapted to kindergarten play are those which are loosely organized, frequently they are of the "ring" or "circle" type. The games are not dependent upon a specific number of players or a permanent casting of parts. There is some evidence that competition *

* See Wolf reference, p. 187

begins to be a factor of stimulation in the activities of the five-year-old; but that does not mean that it should be featured in group games. At age 5, competition is pretty much a matter of personal concern. "Our side" and "your side" mean very, very little to the kindergarten child. All games have rules, and even the simplest require a fairly strict observance of a few definite rules—otherwise they would not be games. The essential difference between free play and playing games lies in the fact that in free play the activity is mainly directed by the materials at hand and the momentary interest of the child, while in playing games the activity is directed by previously established rules, and the interest of the child has to be something more than momentary if the game is to be successful.

The Spirit of Game Time. Apparently the way in which games are played in the group makes a tremendous difference in both the children's enjoyment and the values which may accrue from the playing. In some kindergartens the game time is little more than an interminable series of repetitious turns and waits. In others the play is so organized that the children's enjoyment is at high peak and the desirable concomitants of the game experience are apparent at every turn. Since the first objective of game time is to give the children the opportunity to experience exhilarant joy, then surely the playing of games ought to be entered into in a gay mood. Nothing is much more pathetic than to observe games being played by children who look repressed and glum. As suggested before, inherent in games there are certain rules and regulations. These rules must be abided by if the game is to go on; but too often the teacher, in her attempt to organize the game, suppresses the fun and thrill of the play. Instead she ought to seek to impress upon the children that good fun and excitement are a legitimate part of game play, but that uncontrolled fun and excitement are really a hindrance to the play.

Time Allotted to Games. It is probable that in a kindergarten where adequate space, apparatus, and equipment is provided for the number of children enrolled, there will be fewer games played than in a kindergarten not so ideally set up. If the group is pressed for space, and if there is little in the way of gymnasium apparatus and other equipment in the room, the teacher would find it necessary to substitute

activities involving more organization for some of the more desirable free activities which require considerable space and the use of apparatus. Group games therefore will probably be played more frequently in less ideal than in ideal setups.

Introducing New Games. In introducing new games, the teacher may adopt either of two policies. She may give a narrative account of the whole game and then give the specific directions for the various parts of the game, or she may simply build up the game step by step, by giving directions for each part as it comes. Many games do not follow set rules. In such cases it is well to encourage the children to give suggestions as to how they think the game might be played. If there are set rules for the game, then it is a waste of time to ask the children how they would play the game, only in the end to tell them how it is to be played.

It is better for the children to follow verbal directions than to imitate exactly the demonstration of the teacher. The practice which they get in following these verbal directions is excellent training for the many later school experiences which will involve the grasping and carrying out of specific directions. If, however, there is a child in the group who is already familiar with the game, his eagerness to show how the game is played ought to be taken into account. This child will be pleased with the experience of demonstrating to others how the game is played.

In presenting a new game by verbal direction, the teacher must be sure that each step of the game is made clear to the children before she proceeds with the next step.

Techniques to Use in Dealing with Large Groups of Children. Many of the games which are played in kindergartens have to be adapted to the size of the group. For example, to play "Skipping Tag" in a group of from forty to sixty children, with but one person skipping at a time, would be extremely boring, or else it would mean that few children would get a turn during the entire game. There are several modifications of the game which might be made. One which works many children into the game in the shortest time can be carried out in this manner: the first child to skip about the circle tags a second child, and then these two children tag two more children, and these four in

turn remain in the game and tag four more and so on until shortly every child in the group is skipping. A second way of adapting the game to a large group is to have two individuals instead of one start the game; in this case both children return to their places after having tagged a second child. This, of course, does not speed the turns as much as does the modification suggested above, but for groups of from thirty to forty children this adaptation is probably the better of the two, since it is not quite so confusing as the other. A similar procedure may be followed in adapting "The Farmer in the Dell" for use with a large group of children. In playing this game two "farmers" may be chosen to start the game, each farmer choosing for himself a "wife." In order to avoid confusion, the person may take hold of the hand of the person by whom he was chosen. The last one in the line will always be the one to choose. Other games such as "Pop Goes the Weasel," "How Do You Do, My Partner?" and "Round and Round the Village" may be adapted to large groups in much the same way.

If there are two teachers in the room it is sometimes well for each teacher to have a game group. If there is not enough space for this in the kindergarten room, one group can perhaps play in the hall or in the gymnasium. The playground usually affords almost unlimited space, and in pleasant weather the kindergarten teachers would do well to make more use of it than is their general custom.

In large groups it is always difficult to recall which children have and which children have not had turns. If those who have had turns sit down as soon as their turn is ended, then there will be no misunderstanding, and the game will run more smoothly.

For certain games, or sometimes because of lack of space, it is necessary to divide into two smaller groups. The division is most frequently made on the basis of sex. In fact it is so often made on this basis that kindergarten children sometimes get the idea that boys and girls must of necessity engage in different activities; an idea which is of course absurd, for very little sex difference is found in the game interests of kindergarten children. There are many other ways of dividing the groups which the thoughtful teacher may use. For example, if the children are in a circle, the teacher may ask all those on one side of the circle standing between two named children to be in one group and the remainder of the original group to be in the second group. If the children are sitting or standing in a group, the division might be

made by suggesting that all those conforming to a certain specification, such as all those having red on their clothes, or all those wearing shoes with laces, or all those having blue eyes, shall be in a particular group. Sometimes the basis for the division of groups may be made in the light of the kind of work which the children have done in the work period; as, all those who worked with crayons or all those who worked with clay, etc. Making the division upon this somewhat unusual basis not only keeps the children mentally alert, but it also gives them an opportunity to play with different groupings of children.

In some games the children divide themselves into groups of three and four. If the children are standing in a circle, they may be asked to count off 1, 2, 3. As each group of three is counted off, this group may form its own new unit as in the game of "The Squirrels in the Tree." The same counting device may be used when small groups are to engage in a game by themselves. For example, in the game of "The Little White Ponies" the children often count off in groups of five or six. In this case a new group does not count off or leave the circle until another group has returned to its place.

Kinds of Games Played in the Kindergarten. Most games for young children involve a great deal of bodily activity. While the games are not highly organized, yet one finds usually that the bodily activity must be accompanied by no little mental alertness. Though the child may throw himself physically wholeheartedly into the game, at the same time he realizes that he must be quick of wit if he is to remain in the game or if the game is to proceed. Many, though not all, of the games involving physical activity are accompanied or directed by music.

Games involving considerable bodily activity may be divided into the following classes: imitative games, choosing games, dramatic games, purely social games, games of motor skill, gymnastic or stunt games, and competitive games. Games of a quieter sort, though not nearly so numerous as the more active games, fill a felt need in the play program for young children. Most of these games have to do with the quickening of sense perceptions and with mental agility. Games involving little or no bodily activity may be divided into the

following classes: games of hearing, games of touch, games of seeing, mental gymnastic games, and guessing games.

The remainder of the chapter will be devoted to presenting illustrative games of a variety of types. A single game may rightly belong under several different classifications, but in the following pages each game is listed under the heading which seems best to typify its purpose.

Many of the games which will be suggested can be played either indoors or outdoors. The teacher ought not to overlook the fact that the value of the game tends to be enhanced rather than lessened by being played outside in the fresh air and sunshine. The outdoor air is usually fresher and cleaner, and for much of the year cooler than the air inside the building. Moreover, the larger area available for games in the playground makes for greater freedom of movement. Then, too, the fact that on the playground there is usually no objection to loud laughter, or even yells, contributes to the wholehearted enjoyment of the game period.

GAMES TO BE PLAYED INDOORS OR OUTDOORS

Imitative Games

Did You Ever See a Lassie?

Formation: Circle.

Music:

DID YOU EVER SEE A LASSIE?



"Did you ever see a lassie (laddie), a lassie, a lassie,
Did you ever see a lassie, do this way and that?
Do this way and that way, and this way and that way,
Did you ever see a lassie do this way and that?"

Action:

One child in the middle. Other children grasp hands and circle around the child in the center while singing the first two lines.

During lines three and four the children drop hands and imitate the child in the middle, who thinks up some special way to hop, move his head, etc.

Looby Loo

Formation: Circle.

Music:

LOOBY LOO



"I put my right hand in.
I put my right hand out.
I give my right hand a shake, shake, shake,
And turn myself about."

Chorus:

"Here we dance looby loo,
Here we dance looby light,
Here we dance looby loo,
All on a day so bright."

Verses follow with "I put my left hand (right foot, left foot, round head, whole self) in," etc.

Action.

Children, grasping hands, walk about the circle as they sing the chorus. At the beginning of the verse the children drop hands, put their hands on their own hips, first put right hand into circle, then right hand outside circle, then shake right hand and with hands on hips turn about in place. Children grasp hands and sing, repeating the action of the chorus.

Other Imitative Games

Toy Man

Follow the Leader

Polly Perkin

Playing farm animals

Playing toys

Choosing Games

Skipping Tag

Formation: Circle.

Music: Any skipping music (Rustic Dance reference No. 2, p. 252)

Action. Children stand with one hand outstretched, palm up. One child skips inside circle to the music, touches second child's hand. Second child starts skipping in opposite direction. Two meet, grasp right hands, and dance about each other. First child goes to his place and second child proceeds as did the first.

Popcorn Man (The Muffin Man)

Formation: Circle.

Music:

THE POPCORN MAN (The Muffin Man)



Do you know the popcorn man, the popcorn man, the popcorn man?

Do you know the popcorn man that lives in Drury Lane?

Yes, I know the popcorn man, the popcorn man, the popcorn man.

Yes, I know the popcorn man that lives in Drury Lane.

Action.

Child who is to start the game stands in front of child of his own choosing. As lines 1 and 2 are sung the child dances up and down on his toes, hands on his hips (feet make sound like popping corn). As lines 3 and 4 are sung the child in front of whom first child was standing dances up and down on his toes, hands on hips. The two children join hands and skip about the circle as they, with the group, sing "Two of us know the popcorn man." Game starts again, this time the two children standing in front of two others. Game continues until eight have had turns. The eight sit down and another person is chosen to start the game.

Other Choosing Games

The Farmer in the Dell
 How Do You Do, My Partner?
 Walking Tag (like skipping tag)
 Rig-a-Jig-Jig

*Dramatic Games**The Little Princess*

Formation: Circle.

Music:

THE LITTLE PRINCESS



1. "There was a little princess, princess, princess.
 There was a little princess, long, long ago.
2. She lived in a castle, castle, castle.
 She lived in a castle, long, long ago.
3. The little princess fell asleep, fell asleep, fell asleep.
 The little princess fell asleep, long, long ago.
4. A little prince came galloping, galloping, galloping.
 A little prince came galloping, long, long ago.
5. He woke the little princess, princess, princess.
 He woke the little princess, long, long ago.
6. He took her to his castle, castle, castle.
 He took her to his castle long, long ago."

Action:

One child is chosen for the princess and one for the prince.

Verse 1: The little princess walks about inside the circle as the children sing.

Verse 2: The princess continues to walk. Children in the circle form castle by putting hands high over their heads.

Verse 3: The princess drops down on the floor and pretends to sleep.

Verse 4: The prince gallops about inside the circle. (Music changes tempo to suggest gallop)

Verse 5: Very gently he stoops down and wakens the princess.

Verse 6: The prince steps in front of the princess and together they gallop about the circle.

Five Little Chickadees

Formation: Row of five facing group.

Music:

FIVE LITTLE CHICKADEES



1. "Five little chickadees sitting in the door.
One flew away and then there were four.
2. Four little chickadees sitting in a tree.
One flew away and then there were three
3. Three little chickadees looking at you.
One flew away and then there were two.
4. Two little chickadees sitting in the sun.
One flew away and then there was one.
5. One little chickadee left all alone.
He flew away and then there were none."

Action:

As each verse is sung, the chickadees sitting in the door, in turn fly from the line, about the room and back to sit with the other children.

Other Dramatic Games

Little White Ponies

Round and Round the Village

Here Comes a Blackbird through the Window

Snail

Hickory Dickory Dock

Little Miss Muffet

Jack Be Nimble

Purely Social Games

Pop Goes the Weasel

Formation: Standing in circle.

Music:

POP GOES THE WEASEL



"A penny for a spool of thread,
A penny for a needle,
And that's the way the money goes,
Pop goes the weasel."

Action:

One child skips around inside the circle. At the word "pop," the group in the circle give a single clap, and the child skipping stops in place. He takes the hand of the child directly in front of him and they skip about in the circle as the music is repeated. On the word "pop," both children stop. They choose the child directly in front of them, form a circle of their own, and skip around in place as the music continues. This time on the word "pop" the first two children to make up the circle of three lift their arms, and the third child skips out under the lifted arms to start the game again.

Beckoning Game

Formation: Circle.

Action:

One child in the center. Beckons to child in the circle. The child beckoned to comes into the circle, shakes hands with the first child. The first child goes back into the circle, sits down and the second child repeats the action of the first child. Game continues until each child has been beckoned to. There seems to be a tremendous fascination about the fact that the whole game proceeds in silence.

Postman

Formation: Seated in a circle.

Action:

The large rubber ball is held by one child. He pretends that the ball is the postman and rolls it across the circle to another

child. This child cannot pick up the ball unless the ball (the postman) touches him (raps at his door). When he feels the ball touching him, he picks it up and sends it on its way again.

Other purely social games

Ring Around a Rosie
London Bridge
Little Sallie Waters
Here We Go Walking

Games of Motor Skill

Ball

Throwing the ball into the basket in the middle of the circle.
Standing on a given line and throwing or bouncing the ball into the basket.
Bouncing and catching the ball.
Bouncing the ball without catching (counting to see how many consecutive times it can be bounced).

Skipping Stopping

Formation: Informal group.
Music: Any skipping music.
Action:

All the children skip with the music. They are to stoop when the music stops. The last one down is out of the game.

Other Games of Motor Skill

Crossing the Stream (Blocks placed at regular intervals to form steppingstones)
Tossing the ball into the air (Teacher calls name of a child. Child dashes to catch ball before it touches the ground.)
Dodge ball
Rolling ball to knock down block tower
Rolling ball through a wicket or arch
One, Two, Three, O Larry O
Spin the Ring or Platter
Hot Potato
Ring Toss

Gymnastic or Stunt Games

Wand Game

Formation: Informal.
Action:

Four or six children are chosen to come to front of group. Each child is given a stick $2\frac{1}{2}$ feet long. He grasps each end of stick

in his hands. A variety of true and false statements, such as "chickens bark"; "dogs meow"; "cats scratch" are made by teacher. If statement is true, wand is pushed high above head, still grasped in both hands. If false, pushed down.

Bicycling

Formation: Informal.

Action:

Children lie on backs, lift feet and pretend to ride bicycle in the air. Now slow, now fast, now coasting, now coming to a stop.

Other gymnastic or stunt games

Getting up from floor without using hands

Playing wheelbarrow

Playing turtle

Playing ducks

Playing wooden man

Competitive Games

Block Relay

Formation: The children not playing sit at the side in a group. Two chairs are placed at one end of the room and two chairs at the opposite end of the room. Three blocks are put on each of the two chairs at one end of the room.

Action:

The two players stand by the two chairs. On a given signal, each child picks up a block and runs with it to the chair at the other end of the room. This is repeated until all three of the blocks have been transported to the chairs at the opposite end of the room. The children then return and sit on the chairs which first held the blocks. The first one to sit on the empty chair wins the game.

Duck, Duck, Gray Duck

Formation: Circle.

Action:

The child who is *It* runs around the outside of the circle. As he passes the children he touches certain individuals and says "Duck, Duck, Gray Duck." When he touches the child and says "Gray Duck" he starts to run, and the child tagged follows in pursuit, to try to catch him. If the pursued child is caught before he returns to his place, he must go into the middle of the circle, and there squatting like a duck, he must remain until the game is over.

Hill Ball

Formation: Children standing in a line on a hill. (May also be played on level ground.)

Action:

Teacher throws the ball down the hill.

Children race down the hill to see which child can bring back the ball first.

Other Competitive Games

Drop the Handkerchief

Two Deep

Musical Chairs

Japanese Tag

Surprise Tag

Pussy Wants a Corner

Cat and Rat

Charlie Over the Water

Have You Seen My Sheep?

Squirrels in the Hollow Trees

Fire on the Mountain

Touch Ball

Color Dodge (piece of colored paper pinned on back of each two children)

Wood Tag

Hearing Games

Mother Kitty and Baby Kitty

Formation: Informal grouping or circle

Story:

Mother kitty and baby kitty are fast asleep. Baby kitty wakes up and runs away and hides. Mother kitty wakes up and finds baby kitty gone and calls "Meow." Baby kitty answers "Mew."

Action:

Two children, a "mother" and a "baby kitty," lie on the floor. The children in the group repeat the story and the "baby kitty" and the "mother kitty" dramatize the story as it is told. "Mother kitty" and "baby kitty" supply the "Meow," and the "Mew." Game may be played with 1, 2, 3, and 4 "kittens."

Ring, Bell, Ring

Formation: Informal grouping

Action:

One child is chosen to close his eyes. Another is given a bell which he must hold very carefully so that no sound will be heard. The child with the bell runs to some distant part of the room. When he is ready, the teacher tells the first child. The first child calls "Ring, bell, ring." The second child rings the bell and the first child points in the direction of the sound. If he points in the right direction, he then becomes the bell ringer. If he does not point in the right direction, the second child remains the bell ringer and a new child takes the first child's place.

Pattern Clapping Game

Formation: Circle or informal grouping.

Action:

The teacher claps¹ out a pattern with her hands, thus:

• • • — • •

or, • — • • •

or, • — • • — • • •

If the child called upon can clap back the same pattern, he may remain standing. If he fails to clap back the same pattern, he must sit down.

Other Hearing Games

Dog and the Bone

Who Is Knocking at My Door?

Hunting for the Ball (Music loud and soft directing the hunt)

*Seeing Games**Huckle, Buckle, Bean Stalk*

Formation: Informal grouping

Action:

Five or more children are chosen to leave the room, or all the children may be asked to close their eyes. The teacher or a child puts a ball or some other object, previously selected by the group, in a fairly conspicuous spot. When all is ready, the teacher gives the signal and the selected children begin the search for the object. When they find it, they walk to their places without touching it, merely calling out "Huckle, buckle, bean stalk." A time limit may be put on the hunt.

Policeman and Lost Child

Formation: Circle.

Action:

The teacher, playing that she is a mother, calls some child in the group, pretending he is a policeman. The "policeman child" answers the call. The mother solicits the aid of the policeman in the search for her lost child. The policeman asks the mother to tell what her lost child is wearing. The mother describes in detail the clothes which her lost child is wearing. The policeman looks about the circle and brings to the teacher the child answering the description. Sometimes, in order to make the game more complicated, several lost children (or lost articles) are to be

¹ She may also tap out a pattern with rhythm sticks or sound it out on a Chinese drum.

found. With older children the part of the mother may be played by a child.

Color on Color

Formation: Circle or informal grouping.

Action:

Three or five children close their eyes while another child picks a large colored crayon from the box. He shows it to the group (but not to the people whose eyes are supposed to be closed) and then places it somewhere in the room in a fairly conspicuous spot, on a color similar to the crayon. Then he returns to the group, the others open their eyes, and go in search of the crayon. If they see it, they come back to the group and announce "Color on color; blue matches blue" or whatever the original crayon color may have been. The last one to spy the crayon returns the crayon to the box and the game starts again.

Other Seemg Games

"I am thinking of something in this room" (description given).
"What is missing?"

- (a) "Tuck in" and "take out" pictures may be used in this game.
- (b) Children may hold pictures of birds, flowers, or animals.

One child is asked to hold his picture behind him

A child who has had his eyes closed is then asked to look up and name the missing picture.

Games of Touch

Identifying Objects in a Cloth Bag

Formation: Informal grouping.

Action:

The teacher has a variety of objects, such as a ball, a pencil, a toy boat, a toy automobile, a toy airplane, and animals of various kinds. She puts from three to six objects in the bag at the same time. Individuals are asked to come up to identify the objects by feeling the bag.

Identifying a Child

Formation: Informal grouping

Action:

One child is asked to close his eyes (sometimes paper handkerchiefs are used as blindfolds). The teacher beckons to a child in the group. He goes up to and shakes hands with the child. The blindfolded child then tries to identify the child by feeling his head and his clothes.

Other Games of Touch

Identifying shapes on form-board puzzles.

Matching pieces of cloth (with eyes closed).

*Mental-Gymnastic Games**Mrs. Brown's Party*

Formation: Circle.

Story:

Mrs. Brown had a party and at the party she served cake.

Action:

One child is chosen to start the story. The child at his right repeats the story as told and adds one more thing which Mrs. Brown served at her party. The game continues around the circle. If a child fails to repeat all the things which Mrs. Brown had at her party, or if he fails to repeat them in order, the turn goes to the child on his right. The children may be expected to recall and repeat in order from six to eight articles.

Touching Objects About the Room

Formation: Informal grouping or circle.

Action:

This game is played much as "Mrs. Brown's Party," except for the fact that the children touch the objects about the room rather than naming articles. The children may volunteer for turns. From eight to ten objects are usually touched before the game ends.

Other Mental-Gymnastic Games

"True or false": Teacher makes statement such as "Birds fly"; "Fish run." If the statement is true, the children raise their hands; if false, they clap once.

"I say stoop."

"Do as I say but not as I do."

*Guessing Games**Hunt the Slipper*

Formation: Circle.

Music:

HUNT THE SLIPPER

"Cobbler, cobbler, mend my shoe;
Have it done by half past two.
Stitch it up and stitch it down;
Now see with whom the shoe is found."

Action:

A child stands in the center of the circle, holding an article representing the shoe. He gives the article to a child on the circle saying, "This must be mended quickly." The cobbler child promises to do so. The first child sits down to wait for his shoes. He closes his eyes. The shoe is passed from child to child as the song is chanted. At the last measure of music the child, holding the shoe, puts it quickly behind himself and resumes a natural position. The customer demands his shoe. He must guess who has the shoe. Each child questioned answers. He has three turns to guess where his shoe is.

Other Guessing Games

"I Am Very, Very Small."

"Button, Button, Who Has the Button?"

SUMMARY

In some kindergartens, organized group games are practically ruled out of the program, in others there is a daily game period. There is no adequate research to support either procedure. Therefore, it is suggested that kindergarten teachers run a middle course by having games, but not making a fetish of the game period. Group games best adapted to a five-year-old's play are those which are somewhat loosely organized. The element of competition is still a very personal matter as far as the five-year-old is concerned. It is conceivable that more group games will be played in situations where the physical environment is less ideal than in situations where ample space and equipment are provided for the number of children enrolled in the group.

QUESTIONS AND PROBLEMS

1. What reason can you give for having few rather than many games in the kindergarten?
2. The teacher asks Grace what game she would like to play. Grace names one which they have already played earlier in the day. Since the teacher has asked for Grace's suggestion, should she accept it even though she feels the group would benefit more from a change of games? How can she avoid a similar situation next time?

3. What specific games might conceivably (a) develop motor poise and good posture, (b) quicken sense perceptions, and (c) develop habits of fair play and good sportsmanship?

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Relaxation and Rest

THE kindergarten, by providing rest periods and a program planned to give relaxation through change of activity, attempts to:

1. Establish a balance between activity and quiet.
2. Give the child a time of uninterrupted quiet.
3. Help the child to learn to enjoy quiet.
4. Teach the child how to relax.
5. Really rest the child.

Kinds of Relaxation. A distinction may be made between active and passive relaxation. Active relaxation results from a change of activity and is provided for in the kindergarten day by alternating periods of relatively quiet activity with periods in which the output of physical energy is conspicuous. For example, a discussion period may well be followed by a rhythms period, a work period by a library and story period; a free-play period by a science period, and so on. In this chapter we shall deal specifically with that time in the day when the children have an opportunity to experience, and we hope can learn to enjoy, quiet passivity or inactivity. We shall deal, that is, with the rest period.

Time. The rest period in the kindergarten is usually scheduled for the middle or the latter part of the session. In the morning it occurs most often about ten-thirty, and in the afternoon most often between two-thirty and two-forty-five. There are a few kindergartens in which the afternoon children have their rest period immediately upon arriving at school. This procedure is followed in order that these children may have rest early in the afternoon similar to the nap to which they have been accustomed at home.



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Preparing for a Sixty-Minute Rest in an All-Day Kindergarten

The rest period as observed in schools varies in length from five to twenty minutes. The average time given to rest is about ten minutes. Research in the kindergarten¹ reveals the fact that the longer the children rest (up to the limit of fifteen minutes) the more quiet they become. Not only do the children become more quiet, but from the beginning of the rest they tend to be more quiet and remain so throughout the longer period. Apparently if the children understand that the period is to be one of considerable length, they then really settle down to enjoy it. If, on the other hand, they think of it as just a time to lie down and then shortly bob up, they get little idea of really resting and relaxing.²

While the rest period is usually scheduled for a definite hour, yet kindergartens vary greatly in the kind of activity which immediately follows or precedes the period. If there is a mid-morning lunch, milk, or orange juice, then the rest may well follow this period. From the point of view of exhaustion and needed relaxation, it might well follow a strenuous game or rhythm period. If it does follow the game or rhythm period, then the teacher must be sure that the children are not overheated when they settle down for their rest. Though more signs of fatigue are shown in the teacher-controlled periods than in other periods of the day, yet it would not be wise to have rest time follow immediately upon such a period because the fatigue which arises is the kind which needs as its antidote activity, not immobility.

Preparation for the Period. Before the children settle down to rest, the teacher must make sure that they have had every opportunity to make themselves physically comfortable. If there are toilet and drinking-fountain facilities in the kindergarten unit, then it may be assumed that the children have had an opportunity to make use of them. In such a setup, children are usually encouraged to go to the toilet and get their drinks during unorganized rather than the organized periods of the day. If there is no toilet in the room, then there

¹ Dawe, H. C., and Foster, J. C., "The Kindergarten Rest Period," *Childhood Education*, 11:268-270, March, 1935

² Observations from which the above deductions were made were limited to the mid-morning and mid-afternoon relaxation periods. If the observations had been made on rest periods intended to be sleep periods, such as those provided for in an all-day kindergarten, then it would have been found that the first children to drop off to sleep usually do so about twenty minutes after they get onto their cots; others may drop off at varying times within the hour.

should be provision for groups of children to go to the toilet and get their drinks of water before they settle down for their rests.

The Setup. A darkened room is more conducive to rest and relaxation than a light room, and yet upon occasions it might be well not to darken the room for the rest period in order that the children may not come to feel that darkness is essential to rest and relaxation. All drafts and occasions for possible interruptions should be checked. The general atmosphere of the room should be conducive to rest. In some schools the children sit on chairs and merely rest their heads on the tables in front of them; in others they stretch out on rugs or rug substitutes, and in still others they lie on cots and cover themselves with blankets.

There seems to be no ideal way to rest in kindergarten. If the children could lie on cots, supposing that the cots could appear and disappear in some miraculous fashion, then that situation would approach the ideal. To date, however, no one has struck upon a device which will either provide the individual cots without tremendous cost or which will dispose of the cots in an economical fashion once they have been supplied. The cost and the difficulty of handling the cots makes their use practically prohibitive for most kindergartens.

When the children rest at the tables they of course do not get a chance to relax truly, and if the children are crowded together there is danger of infection from colds, etc., as the faces are close to each other and the children are all breathing against a common surface. About the most that can be said in favor of resting under such conditions is that the children will have a few minutes of uninterrupted quiet.

Many teachers have compromised between the cot and the table situation and have the children rest on the floor. If the children do rest on the floor, and on the whole this seems the most practical and feasible procedure, then they ought to have papers, linoleum pads, or, best of all, individual rag rugs on which to lie. The rugs or mats should be marked so that the children can tell on which side to lie and at which end to put their heads. For the children themselves the rug is apparently little more than an indication of space assigned to them. Without suggestion and help from the teacher, they will not see the rug as a means of keeping clean. They may carefully spread

the rug out on the floor and then walk across it with their dirty shoes.

For storage, the rugs should be folded lengthwise first, so that the part of the rug on which the head rests does not come in contact with the other parts of the rug. Ideally, each child should have his own rug.

If the room temperature is below 68, or if the room is drafty, it would be best to omit the rest entirely. Parents occasionally object to having their children lie on the floor, but if the windows and doors are weatherstripped, and if the kindergarten is above a dry basement or other room, there is little if any cause for their worry. As objective proof of the fact that drafts are not present, one might place a lighted candle on the floor and observe its unwavering flame. Sometimes a folded rug placed in front of a door which leads to the outside will be all that is necessary to alter the situation if the flame does waver.

Procedure. When the rest period is first introduced into the program it is often greeted by a few seemingly quite earnest objectors. For the first day or two it may be wise to suggest that these few sit quietly in chairs and observe the others. The teacher may suggest, in tone at least, that they will soon learn how to do it as well as the others.

For the first few times the teacher may find it less confusing if she calls the children by name to get their rugs or mats. Later they may be expected to remove their rugs from their lockers or obtain them from a pile without being called individually.

If a single light has been left on in the room, or if a single shade has been left up, the teacher may use either the light or the shade as a final signal. When everyone is comfortably settled, the light may be turned off or the shade drawn as an indication of the fact that rest time has really begun and that no more unnecessary moving about is to be expected. A few last whispered words will perhaps follow, and then a comfortable silence may be expected.

Usually the teacher remains seated during the period. Occasionally she will move into the vicinity of a restless child. Sometimes it will help the child to settle down if the teacher herself sits near him in a relaxed position. If the teacher walks nervously about or calls out to individual children during rest time, she is destroying the atmosphere of the period. She is also destroying this atmosphere if she attempts to

clean the room or to chat with her assistant. Research findings show that children seem to rest better when there is but one teacher in the room. An atmosphere of calm and quiet is essential to a real rest period.

Music is sometimes introduced into the period. If so, it is better to limit its use to a certain portion of the time only. Either the music may be played at the beginning to help the children get into a calm, quiet mood, or it may be played after the children have settled down so that they may have something pleasant and quieting to enjoy while they rest. If music is played throughout the period, it frequently becomes merely a noise to cover existing commotion.

At the close of the rest period the children may all get up and put their mats or rugs away at one time, or they may do so as individuals. If the children are called individually, the teacher usually makes it clear to them that she is calling first the children who have the appearance of being completely relaxed. She explains that it does not take so long to rest if all parts of the body—head, legs, feet, arms, hands, and fingers—are resting at the same time.

When the children are called as individuals, then the activity which follows the rest period ought to be one which may be begun before all the group has assembled. For example, the children might have time following rest to look at books, or they might engage in some game such as "Mother Kitty."* Incidentally, if the rest is followed by such periods as these, then the children who have failed to relax will do so in order to join the group soon. The teacher must guard against building up the idea that rest is a punishment. If introduced in the right way and in the right spirit, the child can learn to think of the rest period as a time of undisturbed freedom, a time when he is relieved of all responsibility either to the group or to any individual.

Teaching the Child to Relax. Some children find it much more difficult to relax than do others. A rest period in which the children hold themselves perfectly still by tension may give the effect of a quiet, calm period, but it does not do for the children that which it is supposed to do. If the children are really to profit by the rest, they must learn to relax. Learning to relax is not an easy thing for some children.

* See reference, p. 273.

Sometimes in order to help the children to sense the feeling of relaxation, the teacher asks them to stretch their arms and then to push up as hard as they can push into the air. Then she asks them to let their arms drop to their sides or wherever they chance to fall. This gives the children some notion of how it feels to release the control of their muscles.

Occasionally the teacher moves slowly about the group as the children are resting. If she sees a child who looks particularly comfortable, she lifts his arm or foot to see if his muscles are really relaxed. She explains to the children that if the parts of the body are completely relaxed, then she can do with them exactly what she chooses without feeling any pull or tightening of the muscles. She tries to persuade the children that they don't even need to think about their arms, legs, feet, etc., for if they are really resting they will stay just where they are until the teacher or someone else moves them. One of the best ways to give the children the idea of complete lack of willed control of the muscles is to demonstrate the way in which a rag doll just drops her legs and arms when they are lifted and doesn't move them again until somebody moves them for her. The doll to be used for demonstration purposes must be a very limp creature. She may be placed on a table or a board where the children can observe with ease. After such a demonstration, the teacher may ask all those who think they can relax as the doll does to try resting again. One such demonstration or at the most two during the semester ought to suffice.

Positions Most Conducive to Rest. The tendency in kindergarten procedure is to expect the children to rest on their backs. It is probably true that if the individual lies on his back the maximum number of muscles can be relaxed, and yet there are figures which show that the children who rest on their stomach or side are throughout the rest period more quiet and apparently more relaxed.* People vary in the position which they naturally take for sleeping; for those children who rest naturally on their backs, it is well to encourage that position; but for those children who have formed, from infancy perhaps, the habit of resting and sleeping on their side or stomach, to change the position and hold the changed position will result in an output of effort which will defeat the purpose of the rest period.

* See footnote reference, p. 281.

From the social point of view it is easier for the teacher to conduct a quiet rest period if the children are lying on their backs, for when they are in this position they are looking at the ceiling and thus many distractions are outside the range of vision. Distractions are also shut out if the children are asked to close their eyes. However, to ask a child to close his eyes while lying on the floor with some thirty or forty other children is asking a good deal in the way of self-surrender. From the point of view of actually resting and relaxing, children can rest equally well with their eyes opened or closed. In fact, some children have been known to go to sleep before they closed their eyes.

Sleep in the Rest Period. In the short kindergarten rest time, it is unusual to have a child really go to sleep. If a child does chance to fall asleep while he is resting, it is well to waken him when the others get up so that he will not feel embarrassed when he awakens to find that the others are all up and engaged in another activity. If the child does not waken easily, then a group meeting may be called so that the situation may be explained and talked over with the other children. If they realize that the child is tired and probably really in need of rest, they will be more sympathetic and will be willing to engage in some quiet activities so that the child may rest longer. If the child awakens to find the group sympathetic with him he will probably not resent not having been called nor will he be embarrassed about having fallen asleep.

In case a child frequently falls asleep during rest time, the teacher should make it a point to discuss the situation with the mother of the child. It may be that the child needs some medical attention or it may simply mean that the child is not getting enough sleep at night.

Incidental Rest Periods. Resting need not be limited to the one period scheduled in the program. At any time during the day when undue fatigue is shown by the loss of emotional control, by the constant use of high-pitched, tense voices, by the presence of raucous laughter, or by signs of inability to hold one's self to a task, then a period of rest may profitably be introduced into the program. It may be that individual children only will need this extra rest; but occasions might conceivably arise when the whole group would profit by a second period of rest and composure.

The Extended Rest in the All-Day Kindergarten. In those relatively few schools in which the children spend the entire kindergarten day at school—that is, from eight-thirty in the morning until three-thirty or later—it is customary to include an extended rest period in the afternoon program. In some schools a special rest room is provided, and in others the cots must be set up and made up daily in the regular kindergarten room. If the cots must be set up and taken down daily, the children may be expected to help with the undertaking. The cots are spaced sufficiently far apart so that outstretched arms and legs cannot easily make contacts with other cots. The blankets are put on the beds in such a fashion that the head of one cot alternates with the foot of the cot paralleling it.

The afternoon rest period follows as directly after luncheon as possible, and is approximately sixty minutes in length. If there are some children who seem to need extra rest, they remain on their cots after the others get up.

During rest time, the children are encouraged to have a pleasant time with their own thoughts; there is no particular emphasis placed on sleep, though in many kindergartens a written record is kept of the time the child gets into bed, the time he falls asleep, and the time he awakens or is called. Boys seem to sleep more frequently than girls.¹ It is unusual to have the same child fall asleep on any five consecutive days, and it almost never happens that the entire group sleeps on any one day.

SUMMARY

The kindergarten program provides opportunities for both active and passive relaxation. Active relaxation is achieved by alternating relatively quiet and more strenuous activities; passive relaxation, through the planned rest period. In any rest period there should be an atmosphere distinctly conducive to rest. The children may rest sitting at tables, or lying on rugs or on cots. The rest on rugs seems most practical for the 10- or 15-minute period of the morning or the afternoon. The children very seldom sleep at this time. In the extended rest period included in the all-day kindergarten programs, cots are set up. From one third to two thirds of the five-year-olds may be expected to go to sleep in the 60-minute rest period.

¹ Gesell, Arnold, and Ilg, Frances L., *Child From Five to Ten*, (p 74), Harper and Brothers, New York, 1946

QUESTIONS AND PROBLEMS

1. What is the distinction between active and passive relaxation?
2. What is specifically meant by the statement that "before resting, the teacher must be sure that the children have had an opportunity to make themselves physically comfortable?"
3. In one school, the kindergarten children are rewarded by being allowed to skip the rest period on the days when they behave particularly well; in another, the first-grade children complained because they had no regular rest period. What in all probability were the characteristics of the kindergarten teachers in the two schools?
4. Why should not the rest period and the story period be combined, by having the teacher tell stories while the children lie quietly on the floor?
5. What kind of period might best follow the rest period?

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Language in the Kindergarten

DURING many of the periods and activities of the day, the kindergarten attempts to give the children opportunities to:

1. Clarify their thoughts through oral expression.
2. Acquire an ever larger and more meaningful vocabulary.
3. Acquire correct oral-language habits: correct grammar, clear enunciation, careful pronunciation, pleasing voice.
4. Develop the ability to present ideas and to listen to the presentation of ideas.
5. Acquire or preserve spontaneity of speech.
6. Share in a vicarious fashion the experiences of others in the group.
7. Appreciate the significance of both spoken and written words.

One cannot with any fairness speak of a language "period" in the kindergarten. To the credit of most kindergartens it may be said that throughout the daily program abundant opportunity is offered for practice in oral expression. The children are encouraged to converse informally in a wholesome fashion, to organize and present their ideas verbally to the group, to listen attentively to the ideas presented by others, to engage in the conversational give-and-take of organized social periods, to dramatize, tell, and originate stories, to interpret pictures, to dictate letters and reports summarizing group experiences, and to make up jingles, rhymes, and riddles.

Conversation with Individuals. During the free-play period and the work period there is always much opportunity for conversation. When it does not interfere with one's own efficiency or with the pleasure and efficiency of others, conversation is not only permitted, but encouraged. Needless to say, where five-year-old children are concerned, little encouragement is required. Sometimes it seems that the five-

year-old does all his thinking aloud. Probably there is a good deal of truth in the idea, too, for as the child talks he really does clarify and formulate his ideas.¹

In these periods the child not only converses with other children, but he also has a chance to converse as "man to man" with the teacher. In talking with the children the teacher will do well not to simplify her vocabulary. If on the contrary she is careful to use synonyms or explanatory phrases, she will do much to help the child broaden his own vocabulary. It is sometimes amazing to note with what ease children adopt new words and use them correctly if the meaning is inherent in the context. Two children and a teacher sat quietly observing some Japanese turtles crawling over the sand in a fish bowl. One of the children said, "I would like to pick up those turtles." And the other child added, "Oh, no! They might hurt you!" The teacher entered the situation and the conversation at this point, and as an experiment in language she said, "Oh, really, they are perfectly innocuous." She repeated the statement and added a synonym for the new word, as she picked a turtle out of the bowl. "See they really are perfectly innocuous, perfectly harmless. Their claws do tickle one's fingers a bit, but that is about all they can possibly do to one. Really they're just as innocuous as can be." She replaced the turtle, and with that all three left the table. A day or two later, one of the two children was heard saying to a third child, "I'm not afraid to pick up that turtle. He's perfectly 'nocuous. He can't hurt you. He only tickles you." The five-year-old has an inordinate interest in new words, and he will repeat almost any he hears. For this reason it is an especially good plan for the kindergarten teacher to make a point of using a wide and colorful vocabulary. We will grant that the word "innocuous" is neither colorful nor is it a word which is essential to a five-year-old's vocabulary. Its introduction in the above experiment, however, does serve to show that children are or can be tuned to hearing new words. Let's hope that in normal conversation the teacher's vocabulary would not be so stilted!

In the informal kindergarten conversations throughout the year, we find, or should find, a steady development in the choice of words,

¹ Pyles, Marjorie K., "Verbalization as a Factor in Learning," *Child Development*, 3:108-13, June, 1932.

in the length and complexity of sentences, and in the adequacy and clarity of expression.

The many dramatic-play situations which arise in the free-play period offer excellent opportunity for experimenting with unusual words. Sometimes the words used are taken directly from stories, but more often than not they are simply words which the children have heard grown-ups use frequently. Such words and phrases as "unconscionable," "exasperating," "splendid," "delicious," "perfectly charming" may enter into a bit of dramatic play when they would never enter easily into the five-year-old's ordinary conversation.

Unfortunately, undesirable as well as desirable words find their way into the conversation of kindergarten children! It is odd to note, however, how quickly the children learn to use words which meet with approval and to discard, or at least reserve for other occasions, the undesirable vocabulary.

Presenting Ideas Orally to the Group and Listening Attentively to Others. Since reporting an experience in words alone is much more difficult than showing and describing an object, first attempts at speaking before the group are often made in connection with the displaying of articles or treasures brought from home. While in the beginning of the year the children are encouraged to bring and exhibit to the group almost any sort of article, later they are urged to bring to the attention of the group chiefly those books, toys, or items of interest which have a direct bearing upon the kindergarten interest of the day or week. It is often surprising to note the discernment with which they come to select material to be presented. When, for example, the post office is the center of interest in the kindergarten, the teacher may expect the more alert or older children to bring in such things as stamps, envelopes, models and pictures of mail planes, mail trucks, and mail boats, stories about the mailman, and newspaper comments about mail happenings.

The discussion of work which has been accomplished, or the laying of plans for the coming work period, offer excellent opportunities for the children to present ideas orally to the group. Sometimes the situation resolves itself into an open discussion with various members of the group waiting their turn to express themselves. At other times

individuals may be called upon to tell of their own achievement or outline their plans for work. During the game period a child may have a new game or a new version of an old game which he would like to have the children play. The obvious necessity for clear understanding of the rules or plan of the game encourages the child to speak clearly and to the point, and encourages the listeners to pay close attention.

Conversational Give-and-Take of the Organized Social Period. Probably the best setting possible for conversational give-and-take is "over the teacups." The kindergarten's substitute for this is its luncheon or "snack" period. In some kindergartens milk, in others orange juice, and in still others only water is served. Regardless of the occasion for getting the children together in groups about the table or tables, the period is one which is thoroughly enjoyed if the right spirit of leisurely interchange of ideas is encouraged. The spirit of the period has been caught perfectly by the small boy who upon finishing his orange juice once said, "All right now, let's visit."

A fine opportunity is offered at such a time for building up social courtesies in the way of both speaking and listening. The subjects which may be introduced are almost innumerable. The following is only a hit-and-miss sampling of subjects, but it will give some notion of the many, many subjects which will prove interesting for conversational consideration.

Pets of all kinds	Moon	Vacation experiences	Circus
Flowers	Stars	Excursions made by	Movies
Seeds	Sun	groups	Radio programs
Birds	Ice	Boats	Milk
Butterflies	Water	Trains	Foods
Bees	Rain	Steam shovels	Doctors
Cocoons	Frost	Fire engines	Nurses
Polliwogs	Snow	Airplanes	Birthdays
Turtles	Dew	Homes	Holidays, etc.

If there is a lull in the conversation, or if the conversation seems to be degenerating into idle, foolish talk, the teacher must be ready to save the day by presenting new and vital subject matter. Always the teacher must have in mind some worth-while and interesting topic *which* she may introduce if necessity arises; but it is well to let this period be guided pretty much by the general type of conversation.

Just as grown-ups draw on their past experience and past reading for their social conversation, so may the children be expected to do. The sharing of experiences can lead to the disseminating of a tremendous amount of information. One day while a group of children were sitting about over their orange juice, a small boy ventured the remark that he was going to Duluth for his vacation. A second child immediately picked up the remark and said, "Oh, Duluth! I've been there. When you go there you will see great big boats. And you will see a bridge there that opens right up in the middle." A further discussion of the bridge followed. Then the teacher asked the second child if he had seen the car that takes the people up the steep hill. "Sure," said the little boy; "first my daddy and I went up in a car and then when that car came down we came down and when we were coming down in that car my mother and my sister were going up in the other." A discussion then followed of the pulley system used. Since the interest was still high in cars which could go up and down steep hills, the teacher told of her experience of riding up to the top of a mountain peak in the Italian Alps on a cable car.

Reading. During the library and story period (see Chapter XII) there is much opportunity for oral expression. The children often "comment" audibly as they turn the book pages. Frequently they pretend to read a story aloud to themselves and sometimes their "reading" is done for the benefit of an audience of three or four children.

Dramatization. In dramatizing stories, the children not only repeat portions of the text of the story but they often find it necessary to use words to replace some of the dramatic action. A small girl who was "Goldilocks" once met the situation very well with words. She sat in the big chair, and the middle-sized chair, and made the fitting remarks. But when she found herself seated in the small chair, she apparently realized that the chair was not going to break as the story suggested. A look of blank despair passed over her face. Finally she smiled, rose from the chair, turned it over and said, "Dear me, this chair is broken all to pieces."

Make-Up Stories. The original story gives the child unlimited opportunity to play and experiment orally with ideas. The kindergarten

child who comes to the front to tell a "make-up" story usually has little or no idea of what he is going to say before he opens his mouth and begins to talk. Just as there is likely to be at least one child with quite outstanding musical or artistic ability in nearly every large group of kindergarten children, so there is likely to be one individual who has outstanding storytelling ability. With the artist storyteller to give the children inspiration, many children will be eager to try to spin tales. Sometimes these tales which the children spin are really worthy of preservation. Usually they have in them elements of stories which the children have heard before; but the naïveté and spontaneity of the language and construction used often gives them the charm of old folk tales. The following is a tale told by a kindergarten child possessing marked storytelling ability.

John came to the front of the group, smiled at his audience, waited for them to settle themselves comfortably, and then began: "Once upon a time—" A long pause followed. As he gazed about the room, his eyes lighted on a blackboard picture of a huge horse, a small wagon, and a small boy, which had been drawn that very morning by a kindergarten child. The story continued ". . . there was a little boy, and he had a big horse and a little wagon. The little boy got in the wagon and said 'Giddy-up' to the horse. The horse galloped and galloped and galloped, right to a big forest. Then he galloped and galloped and galloped right through the big forest. When he got on the other side of the forest, the little boy said, 'Turn around, horsey, turn around,' but the horse wouldn't turn around. He galloped and galloped and galloped until he came to the ocean. Then the little boy put on his bathing suit and went for a swim. The horse went for a swim, too. Finally the little boy got into his wagon and he said 'Giddy-up' to the horse. The horse galloped and galloped and galloped right back to the forest. It was getting dark. In the forest they saw a light. It was the robbers' house. The robbers took the little boy's horse and wagon, and the little boy didn't know what to do; but finally he gave the robbers some money and the robbers gave him another horse and wagon. The little boy got into the wagon and he said 'Giddy-up' to the horse. The horse galloped and galloped and galloped right through the forest and right back to the little boy's house. And then the little boy was back home again and that's all."

Dream Stories. The telling of dream stories offers some children just the opportunity they need for unleashing their imaginations. The really imaginative child will spin his tale almost indefinitely; but the practical, stolid child, even in these stories which suggest no form or bounds, will cling tenaciously to known forms. The following dictated by a five-year-old is an illustration of this last point:

TWO GOATS

Once upon a time two goats went into the woods. They met a rabbit. The rabbit told them to have a race. They all got a line. Then they started. The rabbit thought he would win. (It's something like the story in a book but not just the same—The Hare and the Turtle.) He got tired on the road and fell asleep. The goats went right past him. And when he awoke they were way up nearly to the goal and he ran as fast as he could. He was just as near as they were when they were at the goal.

Sometimes in the dream stories we get an insight into the child's wishes which is most revealing. The story that follows was dictated by a very plain little girl whose mother always dressed her in "just right" but rather severe clothes. And behold! See what a lovely fairylike creature she is in her dreams.

A FAIRY

I dreamed once that I was a fairy. I flew through the sky and no one ever saw me. And the blue sky was so blue that it just matched my dress, when I was a fairy. Then the snow began to fall and my dress turned whiter and whiter as long as the white winter snow did fall. And in the wind the treetops were dancing and dancing. But then the sun began to shine and, do you know, my dress got bluer and bluer again. And the sun got so bright that my dress turned yellow.

Once I had a beautifuler dress than anything. And it was trimmed with lace and it was all full of ruffles and there was a wreath of roses all round the neck. And it had real silvery trimming around the neck, too. And I often put it on when I go to parties and all the people do ask for me. And I had some beautiful shoes on, too; and you never, never saw such pretty ones in your whole life. And that's all.

Making up Jingles, Poems, and Riddles. Just the simple fun of playing with words and building up patterns in the way of jingles and rhymes gives the child much practice in oral expression and also affords much

satisfaction. Jingles and rhymes are often built on an already familiar pattern. One little girl, for example, played for several days with the pattern found in the song "Who Are You?"*

Her product was:

Oh, Tweedle-dum and Tweedle-dee,
Oh, Tweedle-dum and Tweedle-dee,
Come over to my house today,
Please come and play.

Children's poetry—and when we speak of children's poetry in this sense we usually mean the child's poetical ideas and not his complete verse—is often worth recording—if not for the satisfaction which it may bring to other children, at least for the newness and freshness that it may bring to the adult world. When a five-year-old can summarize his feeling upon awakening to a world covered over with newly fallen snow in this fashion, "Oh, Daddy, doesn't it seem just like God's hand stretched out over all the world?" then surely he has much to add to the adult's thinking.

Making up riddles, having them recorded, and then read back to the group is an experience which helps the children both to express themselves to the point and to have an appreciation of the written word. Riddles may be made up about any number of things, but in order to help the children express themselves pointedly it is well to limit the subject matter on any given day. For example, one day the children may make up riddles about animals, another day about toys, another about birds, and so on. The children sometimes make up riddles about pictures they have drawn. Then when the children fail to guess the riddle when it is read to them, they may look at the picture for their answer. Some examples of kindergarten riddles about birds and animals follow:

BLUEBIRD

I have blue on my back
And my breast is darkish orange;
I build my nest in a hole in the tree.
What am I?

ZEBRA

I am striped, black and white.
I have a black nose.

* See reference, p. 231.

I live in the jungle.
I can gallop and kick.
I eat grass.
What am I?

Retelling Stories. The children enjoy retelling not only the stories which they have heard in the kindergarten, but also stories which they have heard at home, over the radio, or at parties. Sometimes chance remarks or happenings of the day remind the children of stories they have heard. Such stories are well saved for or repeated at the story-telling time.

Interpreting Pictures. To hold a picture before a group of five-year-old children and say, "What is this picture about?" or "What is this a picture of?" will usually result in an enumeration of the objects seen in the picture or perhaps in a phrase or two about the action in the picture. If, on the other hand, the children are presented with a series of pictures for which there is no text, they will be eager to make up a story to go with the pictures.

Picture books with texts in a foreign language, such as *L'été à la ferme et à la basse-cour*, *La Giornata di Titi* and *Etwas von den Wurzelkindern*, and picture books with no text at all such as *What Whiskers Did** are excellent vehicles for original stories based upon a series of pictures. The English text of *Peregrin and the Goldfish*, Dalglish, was thus devised by a group of children and their teacher. Still another source of stimulation for original stories is found in certain ten-cent picture books whose illustrations are superior to the text. The kindergarten child is not too young to appreciate the fact that not all books are equally good, and while as a general thing the school tries to discourage any mutilation of books, it is quite permissible in these cheap books to write a new story and paste it over the old text.

Functional Written Language. Letters or reports describing interesting excursions and experiences may be sent to absent teachers or children. Often during the kindergarten year occasions arise for sending dictated invitations, business and "thank you" notes.

When letter writing is first proposed to the children, the usual response is, "But we can't write." An interesting discussion often fol-

* See reference 20, p. 218.

lows as to how a person who cannot write might send messages to an individual at some distance. Children in this modern age are apt to propose telephoning, telegraphing, sending radio messages, etc. When the teacher brings the discussion back to the possibility of sending the message on paper, some child will doubtless suggest the possibility of drawing pictures. A discussion might then follow of the various things one would want to include in the letter. The teacher may volunteer to write down the ideas or to write down what the children would like to say about their pictures. If the teacher writes down the message in longhand and then has the letter typed, the children can get some appreciation of the two kinds of writing. The first letters to be dictated without the use of pictures are usually very brief; the later ones are often quite lengthy, informational, and newsy affairs. While, of course, the teacher may present leading questions in order to bring the thinking to a point, yet if the letter is to show spontaneity and originality, she must not let herself fall into a habit of questioning and requestioning until she gets some exact form of response. It is well to discuss desirable substitutes for poor English forms and to encourage the use of a variety of words, but it is not desirable to have the children express themselves in perfect English.

The following examples give some notion of the types of style and subject matter of kindergarten children's letters and reports:

Dear Mr. B——,

Can we please have the rooster and the chicken back? We might be able to keep them in the squirrel cage or in our barn or we might make a chicken house.

We don't want them forever. We want them for about three days.

When you come with the chickens we will say "thank you" for bringing them. We will help you with them

Sincerely,

The Kindergarten Children

Dear Dr. H——,

We have been thinking about honeybees all spring. Will they sting us if they get out of their hive and fly in the room instead of outside?

We want honeybees to make honey for us.

Have you any honeybees? Could we have some bees, please, sir?

Would you please teach us how to take care of honeybees?

Please write a letter back to us if you have any honeybees for us or not.

We could come after the bees.

Thank you!

Yours truly,

The University Kindergarten Children

Dear Miss B——,

We have your card of the soldiers of Buckingham Palace. That was a nice card you sent.

The chickens are getting fatter than they were. The baby chickens can eat big corn. We can put them over the fence now and they are learning to fly.

We made a boat out of blocks. We have a smokestack on the boat. We gave away our turtles.

We have flowers in our garden. The squash vines are growing big.

We ate lettuce sandwiches down by the river. We ate carrot sandwiches on the knoll on the campus.

Have you forgotten about the book that I gave you? (Bob)

Truly yours,

The Kindergarten Children

JEAN'S FIRE

Jean had a fire in her roof. Oh! it was terrible. Jean's aunt's housekeeper came in the door hollering, "Fire! Fire! Fire!" Jean's daddy said, "Don't make so much noise, we'll call the fire department."

The neighbors and the students came to the fire. The fire department came. The firemen had to knock a hole in the wall. They put the hose through the hole. The stairway got soaking wet. The firemen went up the ladder and squirted the hose. P—lush, P—lush, Plush. The fire went out. The firemen went away. Now the roof is covered with tarpaper and canvas.

A TRIP TO THE FIRE-STATION*

When we had our meeting in the kindergarten, Jean told the children and Miss Smith all about the fire. Miss Smith called the fire station to see if we could come to see the fire barn. The fireman said, "Did you wish to report a fire?" Miss Smith said, "No, we want to come to see the fire barn." The fireman said, "Oh, is that it? All right, come along any time as soon as you want to."

We stood in a line and walked to the fire station.

When we went in the fire barn a dog said, "Bow-wow, bow-wow."

* This account was dictated by the children late in the school year. Many of these children were six chronologically and some seven and eight mentally.

He was sitting in the seat of the hook-and-ladder truck. Jim put on the fireman's hat. Richard put on the fireman's boots. The boots were too big and too heavy. He almost fell over. John put on the fireman's boots. He walked a little. Some children got on the fire truck. Marnie rang the bell. Some children got on the running board of the truck and some got on the back. John pretended he was driving.

The firemen showed us their fire-alarm bell, they showed us their signal board. We saw a fireman slide down the pole.

We went upstairs. We saw the open hole where the firemen slide down the pole. We saw a man dress up fast in his "hitch pants" and boots. Then the fire bell rang. Margaret was scared and covered up her ears. The fireman said, "Fire, stand back, everybody!" Then he said, "Never mind, there's no fire." We saw the beds with the covers and the mattresses turned over. The firemen sleep upstairs. We saw the big bell that wakes the firemen at night. The bell was about eighteen inches across.

We came downstairs. The firemen lifted the children up a little way into the air and the children slid down the pole.

We saw the kitchen.

We found our partners and walked back to the kindergarten. It was a very windy day.

Functional Oral Language. If the teacher is careful to use language in such a way that the child needs to listen to the whole statement before he has all his facts, then she will be encouraging the child to listen with care to the spoken words. All too frequently children know or think they know what we are going to say before we have finished our statements, so they simply stop listening. The mother or teacher who says the same thing over and over or who says the same thing in the same words every time is, in practice, teaching the child to ignore the importance and function of words. On the other hand, if, for example, the teacher says, "Betsy, would you walk over to the science table and bring to us the magnifying glass with the green frame, the one nearest the salt crystals?" Betsy will have a large order to fill. But if, on Betsy's return, the teacher makes a comment to the group to the effect that Betsy did remarkably well to get every single word in the request, and if she then further points out that Betsy walked over, Betsy brought the magnifying glass with the green frame and that she brought the one nearest the salt crystals and not nearest the stones, she will be helping the group to appreciate the function of words.

The group's appreciation of the function of words can be further stimulated by such a statement as, "This will be a turn for anyone who is wearing brown oxfords, who lives in The Grove, and who painted a picture this morning." Or, "Let's have all the children who come from across the river and who have brought seeds for the garden sit at the round table." A grandmother observing in a kindergarten once said, "I just don't understand it. Tommy seems to listen and fairly hang on every word the teacher speaks. At home his mother talks and talks and he never pays the slightest attention." Could it not be that all of us upon occasions fall into the habit of forgetting that words should be functional?

Colorful Language in Everyday Living. As grown-ups we often come to have very stereotyped patterns of speech. We say, for example, "It's as black as pitch;" or "It's as cold as ice;" etc. The five-year-old whose patterns are not so stereotyped says, "It's as black as the inside of a furnace;" "It's as black as burnt matches;" "It's as black as inside a rhinoceros;" or "It's as cold as an attic;" "It's as cold as inside a refrigerator;" "It's as cold as up where Santa Claus comes from." As further illustration of the refreshing quality of children's speech, read the brief but colorful samplings below:

One child, observing the foam on the turbulent, churning waters of a dam said, "Oh look, look. See all the 'soaps' on the water."

Another child, looking meditatively at a crescent-shaped planting in a formal garden, said, "Hm! I guess the little moon must be buried there."

And still another child in discussing rainbows with his teacher made this summarizing statement, "Yes, the rain drops are just like a thousand and thousand prisms in the sky."

Specific Techniques for Raising the Standards of Oral English in the Kindergarten. Always the teacher must keep in mind the fact that her own use of English is one of the greatest factors in improving the language used by the children. Through her example she can do much to help the children to appreciate and attempt to use quiet, well-modulated voices, to speak with clarity, to speak to the point, to speak with ease and fluency, to enunciate carefully, to use well-chosen words, to eliminate slang, and to use acceptable grammar.

When a child speaks before the group he may be encouraged to

make sure that the group is ready to listen before he begins to speak. He should learn that in order to hold the attention of the group, he needs to present his ideas directly, to look at the group, rather than at the teacher, and to speak clearly and distinctly.

In the child's first attempts to express his ideas to the group, the teacher must keep in mind that the expressing of the idea is much more important than the way in which it is expressed. Grammar is to language what technique is to art. It is necessary to a perfect product; but it is not essential to the idea and it is cramping in style to stress it too much. Whenever corrections of form or pronunciation will not disturb the flow of the child's thought, the teacher must be ready to help the children acquire correct grammatical usage. Such instruction is, of course, given not by citing rules or insisting upon the child's repeating the preferred form, but by presenting informally the correct expression. If, for example, the child says, "Yesterday I seen a robin," the teacher may come back immediately with, "Yesterday I saw a robin, too," and then if that child or the next child continues to use "I seen" the teacher may well ask if he does not mean that "he saw a robin."

To give the child enough in the way of experience so that he really has something about which to speak and to set the stage so that he has an audience, either an individual or a group, these two things alone will do much to catch and cherish the spontaneity of the five-year-old's language. Example and substitution will help to produce acceptable grammar.

SUMMARY

Throughout the total day, rest period excepted, the kindergarten affords opportunities for the child to practice and perfect his language. The child's vocabulary is enlarged and his meanings are clarified through both speaking and listening. He talks with the teachers and his friends, he presents ideas to the group, he listens to the ideas of others. He tells original stories, he makes up rhymes and jingles, he retells stories, he interprets pictures, and he sometimes has opportunities to create new text material for books already written. He comes to appreciate the function of words both through the letters and reports dictated by the group and through the teacher's own thoughtful use of spoken words. The colorful and refreshing quality

of the kindergarten child's vocabulary is something to be cherished. Grammar is necessary to a product perfect in form; but it is cramping to both thought and expression to stress it too much. The kindergarten teacher will do well to remember that the most important factor in improving the English of the children is her own use of good English. Through example and substitution, much can be done to help the child on his way to using acceptable grammatical forms.

QUESTIONS AND PROBLEMS

1. Visit a kindergarten and record any words, phrases, or sentences which seem particularly colorful and refreshing.
2. Try to make up a dream story of your own. Are you of the practical, stolid type, or are you of the imaginative type?
3. Listen carefully to the vocabulary used by a kindergarten teacher. Does she make any effort to help the children increase their vocabularies? How?
4. Does the teacher ever direct the attention of the group to the function of words? How?
5. Note any instances in which a child (1) attempts to incorporate new words into his own vocabulary, (2) plays with rhyming words, (3) criticizes others for mispronunciations, (4) inserts or omits sounds in spoken words, (5) inquires about the meaning of words or ideas.

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Natural and Social Science in the Kindergarten

WHILE the kindergarten does not stress the acquisition of knowledge, children of five are constantly learning, constantly increasing their store of information. They are keenly alert to their environment and are quick to absorb new ideas and new knowledge. It is the kindergarten teacher's responsibility to determine whether the information which the children gain while they are under her guidance is worth while, is inconsequential, erroneous, or is actually harmful.

We can divide the learning of the world roughly into literature, arts, and science. There is no one age or stage of development at which we begin to learn any one of these. Almost from birth, the child is exposed to all three classes of learning. The kindergarten merely carries the child a step further in his acquaintance with these broad fields of knowledge. In Chapters XII and XVII is discussed the language work which the kindergarten offers to its children; in Chapters V and X will be found some suggestions of the kindergarten approach to the arts; in the present chapter, there will be presented the kindergarten level of science.

Sciences may be roughly divided into the natural and the social sciences, that is, into the group of sciences concerned with objects and phenomena of the physical world, and the group concerned with human affairs, with, as Beard puts it¹ "the ideas, opinions, beliefs, activities, interest, purposes, organizations, associations, and relations of human beings." The child of five is enormously interested in the world about him, and during his brief years he has had considerable contact with natural as well as with social science. To be sure, he

¹ Beard, C. A., *The Nature of the Social Sciences*, Charles Scribner's Sons, New York, 1934, p. 3

hasn't thought of it as science, and we haven't compartmentalized and labeled specific experiences as science experiences. Yet it is certainly true that every child has been aware in one way or another of such physical forces as gravity, motion, heat, light, sound, etc. Every child has had some experience with plant and animal life, and, of course, every child has had contacts with people. There is no sharp division between natural science and social science. All science has to do, first, with known facts; second, with the interrelatedness of known facts; and third, with the establishing of new or previously unknown facts. All normal children busy themselves with collecting facts and establishing an interrelatedness of known facts. Children are possessed with an interest in and an essentially scientific curiosity about their environment.

Science in the kindergarten is not something extraneous, something dragged into the curriculum. Science is part of everyday living—of everyday experiencing. When the kindergarten child learns that he can stop his tricycle more quickly when he is going slowly than when he is going fast, he is establishing a fact which in its interrelatedness to other facts will, we hope, help him later to understand why certain traffic laws must be respected.

To have worth-while science experiences in the kindergarten it is essential that the teacher herself be "science-minded." Only the "science-minded" teacher will be alert to the many opportunities in daily living which will help the children to establish facts and appreciate the interrelatedness of facts. Interrelatedness is best appreciated if a problem can be reduced to such a simple form that deductions can be made through controlled observations. The teacher who helps thirty-pound Betsy and forty-five-pound Jean figure out a way in which they can have a satisfactory teeter-totter experience; or the teacher who discourages the eating of snow by setting up an experiment in which the children observe the residue of soot and sediment left from melting the "pure white" snow which they themselves have packed into a crystal bowl—these teachers will be helping children to establish new facts through observing the interrelatedness of known facts.

How Much Science Should We Have in the Kindergarten? There can be no hard and fast rules set up as to how much science there



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Inquiring Minds Are Eager for Information.

shall be in the kindergarten. The amount and the kind of science experience and information must be adapted to the needs of the children. To make an extensive study of fulcrums and levers at the kindergarten level would obviously seem absurd; and yet for the child to know that a large screw driver can be used to pry up a board which he has accidentally nailed to the workbench would seem desirable knowledge indeed. To make an extensive study of the effect of temperature changes on liquids would certainly be ridiculous at the kindergarten level; and yet, if your kindergarten is near a waterfront where the water freezes in the late fall, then it would be distinctly desirable to set up an experiment which would show that at thirty degrees and slightly lower, water will freeze over, but it will not support anything comparable to the weight of a child.

The background of the types of science experience will vary tremendously from one group to another. For example, a group of rural children might know a great deal about the processes of reproduction, and they might be entirely ignorant of the mechanical process by which an apartment elevator is operated. The city children, on the other hand, might know much about hospitals for small pets and yet not know a thing in the world about the way in which a grain elevator operates. The needs of the child, the background of experience and the present environment will all be factors in determining how much and what science experience shall be provided. As a sort of footnote we might add two other factors which will also play rolls in determining what and how much science is offered. First, a group of superior kindergarten children will be ready for and will even demand a much higher type of experience than will a group of average or mediocre five-year-olds. And second, the amount of science information and experience which kindergarten children will get will depend to a large extent upon how much the teacher feels qualified to present.

Most teachers, somewhere along the way, have had courses in biology, botany, astronomy, chemistry, and physics, or at least they have had general science courses. From their courses they have gleaned a tremendous number of facts; but in many instances these learned facts have been wholly unrelated to other learned facts or other experiences. In other words, too often teachers have not found their science learning usable. The test of good science, whether it be for adult students or for children, is not in the students' ability glibly to

recite the experience, but it is in the students' ability to use the new knowledge in some related situation.

The kindergarten science program is a complete challenge to the alert teacher. She never knows from hour to hour, or even from minute to minute what experience may arise for which she may feel the need of information outside her present fund. So far as we know, no one individual has ever had on hand enough information satisfactorily to meet the challenge of kindergarten children's scientific questings. The teacher should always feel free to acknowledge frankly her ignorance of specific facts, but if the information is of such a nature that it would be useful to the child, she should be willing to seek it either in books or from other sources.

Where Does the Child Get Science Information? There are three sources of information for the child: the spoken words of others, the written words of others (interpreted, of course, through the reading of adults), and actual experience and observation. The average parent is frequently amazed to find some of the things which children have learned simply through overhearing the conversations of adults. Sometimes this information is distorted, but frequently it is approximately correct even down to interpretation of adult attitudes. Then there are the bits of information which the adult gives in response to direct questions from the children or in response to interest which the child shows in some event. Little of the information contained in books is in a form which is useful to children, even when an adult does the reading for him. The Basic Science Education Series, published by Row, Peterson and Company* includes many pamphlet-like books in which kindergarten children can find delightful pictorial illustrations of scientific facts; but even these seemingly simple books are not adapted to direct reading to five-year-olds. Most science writing within the understanding of the five-year-olds is in the form of stories. More and more we are getting stories which provide information appropriate to the young child's interest and capacity. To illustrate, we might cite such picture-story books as *Tim Tadpole and the Great Bullfrog*, by Flack; *The Little Stone House*, by The Haders; and *Mike Mulligan and His Steam Shovel*, by Burton. Of course the most effective way for children to gain information relating to science lies in

* See Parker references at end of chapter.

actual experience and observation. No detailed description of a steam shovel and no story, no matter how well it may be written, can compare in joy and accuracy to the actual observation and inspection of a steam shovel itself.

Opportunities to Observe and Experience. The kinds of general observations and experiences possible will depend to a large extent upon the section of the country or part of the world in which the school is located. In the left-hand column below is a list of words designating localities. In the right-hand column is a list of words having natural- or social-science implications. Draw a line, real or imaginary, connecting the two words which seem most closely associated in your mind.

China	Llamas
Arizona	Maple syrup—"Sugaring Off"
Texas	Lumber and forests
India	Leis
Pennsylvania	Wheat fields
Guatemala	Fjords
California	Chinook winds
Oregon	Cotton fields
Norway	Quetzal birds
Minnesota	Coal mines
New York	Desert
Peru	Rickshas
Vermont	Cowboys
Montana	Orange groves
Honolulu	Sacred cows
Georgia	Subways

If your lines have been drawn correctly, then it is probable that many five-year-old children living in any one of the localities might have had some firsthand experience with the interests represented by the word to which your line has been drawn. Conversely, it is probable that not many five-year-olds living in any one of the above localities would be likely to have had many, if any, firsthand experiences with the interests represented by words not directly connected with the locality.

The kinds of specific observations and experiences which any one group of kindergarten children will have within their own room or own immediate environment will depend in part upon the budget and



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Visiting Pets Need Proper Food and Shelter.

the facilities available, but mostly upon the ability of the teacher to find science implications in the environment. The alert teacher has little difficulty in giving her children a rich fund of science experience with the expenditure of little or no actual money.

The teacher who has been part of the community in which she teaches will be familiar with many of the sources of social- or natural-science material. Perhaps there are families in the community with foreign-born members who would be glad to share with the kindergarten children something of their experiences in their native lands. Perhaps there are returned travelers, or maybe the community would be fortunate enough to have visiting guests from foreign lands. These people might be willing and glad to tell of the life of children in other lands. They might even be willing to teach the children some of the favorite games or to show the children some of the books and toys of children of other lands. Perhaps there is a parent of a kindergarten child who does some work which would be interesting for the children to hear about: an engineer on a locomotive, a postman, a fireman, a milkman, a museum curator, an air pilot, a symphony member, a forest ranger, an artist—any or all of these people might have interesting experiences to share with the children.

Perhaps some parents or older brothers or sisters have hobbies which they would be glad to share with the children. To be able to see and to hear how certain collections, e.g., stones, moths and butterflies, flowers, birds' eggs, etc., had been made would be next best thing to having the experiences themselves. Perhaps somebody in the neighborhood has a pet which the children might go to see or which the owner might be willing to bring to the kindergarten for a brief visit. Then there are always children in any elementary school who, recalling their own kindergarten days and interests will, if encouraged, continue to bring into the kindergarten such things as birds, insects, birds' nests, flowers, simple mechanical devices of their own creation, and many other things which might have science implications.

Some communities abound with interesting material which can be borrowed for use in the kindergarten. In some cities the art museum is ready to co-operate with the loan of materials; in some university towns the biology department is an unfailing source of live animals and information about them, while the geology department may be used for consultation about stones of various kinds, the art department

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for examples of superior execution of simple handwork, etc. In rural settlements and on the outskirts of some cities, there is much interesting kindergarten science material which may be had for the gathering: birds' nests, turtles, tadpoles, toads, clay, sand, unusual stones, tree bark, leaves, seeds, and the like.

No kindergarten teacher can make a wise plan for the activities of her children for the year without knowing the possibilities of the neighborhood. It would be well worth the time taken for any teacher moving into a new community to spend a day or two making some sort of survey of the science resource material in the immediate neighborhood.

Almost any city school kindergarten is within reach of many of the following examples of sources for social- and natural-science information:

Airport	Grocery	Public library
Apiary	Hardware store	Public waterworks
Barber shop	High building	Radiobroadcasting station
Bookbinding shop	(view)	
Bottling company	Homes of children	Railroad station and yards
Bridges	Hospital	Sand pit
Buildings under construction	Ice plant	Sawmill
Café	Ice-cream plant	School
Cereal factory	Laundry	Scissors grinder
Chicken hatchery	Lumber yard	Shoe repair shop
City dump	Market	Steam shovel in operation
Clay pit	Milk wagons	Steamship line
Creamery	Museum (natural history)	Street repairing
Docks	Neighborhood house	Streetcars
Factories	Nursery (tree)	Taxi barns
Farms	Park	Tile factory
Filling station	Pet store	Toy shop
Fire station	Playgrounds	Transfer stables
Florist	Private gardens	Truck farm
Flour mill	Policeman's beat	Vacant lots
Fruit depot	Post office	Vegetable and fruit shop
Furniture factory	Printing plant for newspaper	Woods
Garage (delivery trucks)	Public gardens	Zoo
Grain elevators		
Greenhouse		

Some Minneapolis teachers who were particularly interested in opportunities for studying social and natural sciences mapped out three school districts in widely different sections of the city.

District "A" in the following is a well-to-do, outlying residential district. District "B" is an outlying industrial section which is crossed and crisscrossed by railroads. Not more than half a dozen houses in this section could be classed as in good or reasonably good condition. District "C" is a downtown school district. Railroad stations, wholesale houses, large department stores, secondhand stores, mills, and factories are all found in the community. A few old houses have been divided into cheap, light housekeeping and sleeping rooms, but for the most part the living quarters are made up of long rows of run-down, two-story flats or other grubby-looking buildings. The school enrollment for kindergarten and the first six grades is about 500 for districts "A" and "B" and about 300 for district "C."

It will be noted that the better the district, economically speaking, the greater are the natural-science and the fewer the social-science possibilities. The teacher in the better district need not count this as her misfortune, however, for the parents of her children will be able to afford or offer transportation facilities so that the children can go to different parts of the city to make their observations and further their information. More will be said of this when we discuss excursions.

District "A"

Bakery
Bridge
Chain grocery stores
City dump (well kept)
Creek and parkway
Farm (just outside the district)
Filling stations
Homes
House being built
Lake
Playground (well equipped)
Private gardens
Shoe repair shop
Street repairing—streetcars
Wood lots
Vacant open spaces

District "B"

Bridges spanning river
Chicken yards
City waterworks
Clay pit
Dumps (3) used by neighbors as
source of material
Filling stations
Goats
Grain elevators (3)
Grocery stores (small, grubby-
looking)
Highway machinery
Snow plow, scrapers, etc.
Homes (small, run down)
Neighborhood house
Parochial school

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Playground (meagerly equipped)	Filling stations
Portable sawmill	Floists
Railroad tracks (through and spur lines)	Flour mills
River	Fruit depot
School	Freight depot (loading and unloading in process)
Shoe repair shop	Garage for delivery trucks
Street repairing (horses working)	Grocery stores (small)
Streetcars	Hardware store
Tile factory (just outside district)	High buildings
Trains	Homes of poverty, "flats"
Trees	Hospitals
Unimproved tracts of land	Laundry
Vegetable gardens	Lumber company
Woodenware factory	Neighborhood houses (3)
	Paper-bag company
	Park (wading pool and pump)
District "C"	Post office
Bakery	Railroad stations (2)
Barber shop	School
Bookbinding shop	Shoe repair shops
Bottling works	Steamship offices
Cereal factory	Streetcars
Children's home	Toy stores
Coal yard	Trains
Courthouse	Transfer company
Department stores	Trees (few)
Entire block under excavation	Woolen mills

Obviously the teacher can do little to change the physical environment of the neighborhood in which the children live. She can, however, do much in the way of directing the interests of the children so that new meanings may be built into the environment. In order to direct the interests of the children, the teacher must herself be familiar with the resources of the neighborhood. Even the teacher who has been a part of a given community for a considerable length of time will profit by frequently taking stock of her environment. The arrival of a portable sawmill in the community, the appearance of a crew of road men to repair the street in which rain or frost has erupted the paving blocks, the erection of a new house or store, the appearance of a new streetcar or bus, a neighborhood fire to which the fire department has been summoned, the appearance of the scissors grinder, or

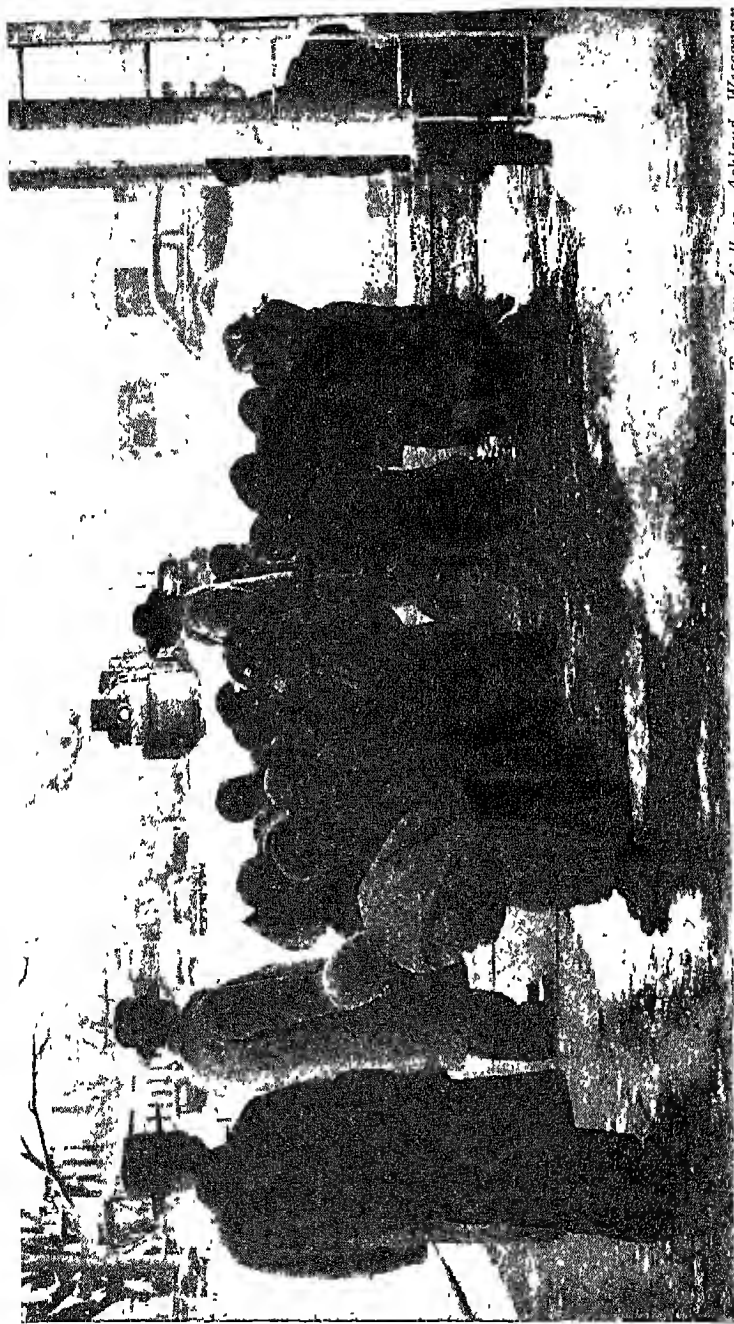
the building of a cement sidewalk or retaining wall—all these things and many more might offer themselves upon various occasions. But unless the teacher is alert to them, and alert also to the opportunities which they offer for profitable social and natural science consideration, their educational possibilities will be lost.

There is almost no end to the number of things in which the kindergarten child can be interested if his attention is but called to them. It is not that the five-year-old delves deeply into the how's and why's of things. Rather than delving deeply he is eager to investigate and explore widely. We are not so much interested in building up within the kindergarten child a great fund of specific accurate scientific data as we are eager to help him to build for himself an inquiring mind and a seeing eye. We want the child to wonder and inquire about this and that. There is an old and true saying that "the world will not grow old from lack of wonders but from lack of wonder." It is precisely this spirit of wonder and inquiry along with careful observation which we must seek to cultivate if the child is to make the most of his environment.

Many of the social- and natural-science experiences may be expected to dovetail with the general area of interest for the kindergarten. Yet opportunities for observation and experimentation in the field of the sciences ought not to be limited to the areas of interest currently being explored. If, for example, a robin with a broken wing is found in the school yard, right then, regardless of other interests and studies, is the time to do something about the robin. Opportunities will follow to learn much about the care and feeding and the habits of birds. As the robin learns to fly again it will be interesting, among other things, to note the principles of balance essential to smooth flight.

Excursions and Excursion Technicalities. A list of possible places to which excursions may be made has been suggested above. Before we consider the actual business of making an excursion, it might be wise to consider some of the technicalities of taking school children on excursions.

First of all, before the teacher plans an excursion or before she takes her children off the school premises, she would be wise to acquaint herself with school policies concerning excursions and with the state laws regarding personal liability in case of accident. In some states the



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A Train Ride for All

teacher as an individual is liable in case of any accident which might befall a child if the child has been taken by the teacher from the school premises. In certain instances there is some insurance arrangement made whereby the school and not the teacher will be held responsible in case of accidents. Wherever the transportation is provided by the school, the school vehicular insurance provides coverage for possible accidents. These are facts of which every teacher should be cognizant and yet these facts should not limit too radically the educational opportunities which the teacher is willing to provide in the way of carefully planned excursions.

Whenever the excursion is to be made beyond walking distance, the teacher should have for her own security the parent's signed permission to take each child. The children can co-operate in getting the signatures by dictating to the teacher a statement of the plans, which they will later take home to their parents. One such letter is quoted below:

Dear Mother:

We are planning to go to see the animals at Como Park. We plan to go Monday, May the sixth, in the afternoon about two o'clock. Miss G——, Mr.—— and Mrs.—— are planning to take us in their cars. If you want me to go, will you please put your name on this paper under my name? I will take the paper back to school. I have to have your name on this paper before they will take me. I hope I may go.

Excursion Planning. First of all, before any excursion is undertaken, both the teacher and the children must be ready for it. The teacher herself must be familiar with the place to which the group plans to go. The children, through previous experience, conversation, and discussion, through information supplied by the teacher, or facts gleaned from stories or picture-story books, must start off in a frame of mind which will make them eager to verify their present information and alert to make new observations and findings.

If the group is to visit either a private or publicly operated establishment such as a fire station, a chicken hatchery, a post office, or a farm, permission must be obtained from the proper authorities and arrangements made in advance. Trips to the woods, to the sand pit,

to the clay pit, and business trips to the florist, or grocery, hardware store, and the like, can always be made without special appointments.

Excursions Within the District. Most excursions within the district can be made on foot. To take large groups of kindergarten children out into the traffic and whirl of city life, at its best, places a tremendous responsibility upon the teacher. There are, therefore, certain excursion rules which must be outlined before the excursion is undertaken. First of all it must be understood that the group always stay together. This does not mean that the children must walk hand in hand, in military rows, but it does mean that there will be no dashing ahead and no straggling behind. It is well before starting out on an excursion to choose a leader, or two leaders and a back captain, or perhaps two. Then make it clear that no one is to go ahead of the leaders or to drop behind the back captains. Wisely chosen leaders and captains will relieve the teachers of a great deal of responsibility. It is understood that groups going on an excursion together will always stop at the street corners so that the group may cross the street together. This is, of course, a safety measure, but when put to the children not only as a safety measure but as a matter of courtesy to automobile drivers and streetcar motormen, then great respect is shown the rule. If the group has both a leader and a back captain, then the teacher may feel free to move up and down in the group discussing matters of interest with various small groups.

If a guide or conductor of the party is furnished by the establishment visited, the children must understand his function. They must feel free to ask questions, but they must also be ready to listen to his directions and to the information which he may have for them. It is to be hoped that out of real appreciation the children will feel moved to thank the individual who has extended the hospitality of the establishment to the group. Often the teacher's own sincere words of thanks will inspire the children to express their gratitude. For example, if the teacher says, "Mr. Jones, I for one certainly do want to thank you" etc., then it is quite probable that others will add, "And I want to thank you, too." . . . "And me, too." . . . "Thank you, Mr. Jones." . . . "Thank you ever so much." . . . "Thanks for showing

us everything" etc., etc. Sometimes notes of thanks sent back are even more meaningful than the "thank you" of the moment.

Excursions Outside the District to Points Too Distant for Walking. Probably there will not be more than one or two excursions during the kindergarten year which will necessitate the use of cars, busses, or streetcars.

If the school has a bus, then it is a reasonably simple matter to load a whole kindergarten group into the one vehicle and set forth. Not many schools, however, are fortunate enough to have a bus at their disposal.

The streetcar is a possible but not a very practical means of transportation for the kindergarten excursion. In the first place, there is the matter of streetcar fare, though it is sometimes possible to obtain passes. In the second place, there is the matter of safety, and in the third, the matter of interfering with and being interfered with by other passengers. Before the war, some of the German schools obviated this last difficulty by making all-day trips with their children, going out of the city when the heavy traffic was coming in, and returning to the city when the heavy traffic was going out. If streetcars are to be used as a mode of transportation, trips should certainly be planned in relation to the heavy flow of traffic.

One of the most satisfactory ways of making trips to points at any distance, though still a questionable one from the point of view of liability, is to solicit the aid and co-operation of parents who are known to be expert and cautious drivers. It is well to have two adults in each car, in case of a flat tire or engine trouble. Car trouble and a group of half a dozen five-year-olds do not make a good combination!

Sometimes, if the distance is not too great and a sufficient number of cars is not available, the trip can be made by having one or two cars double on the trip. A group of fifteen children once made a very satisfactory excursion to a point some two miles distant by using one car only as transportation. The driver with a second adult and a group of eight children started out, leaving a third adult and the remaining seven children to start walking in the direction of the destination. The driver unloaded her group three blocks from the destination and returned to pick up the other group which had progressed about

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two blocks on its way. They all arrived at their destination at the same time and no group had to walk more than five blocks on the whole trip.

Practical Suggestions for Science Experience. In the following section will be found a variety of science experiences from which kindergarten children might gain information and understanding. "A" in each case stands for the activity or experience in which the children may participate and "O" stands for some of the observations which the children together with the teacher might make. It will be noted that in one way or another each activity and observation has to do with (a) known facts, (b) the interrelatedness of known facts, and (c) the establishing of new facts. No attempt should be made at the kindergarten level to offer a university course in science, but provision should be made for giving the children the information which they want and are prepared to use. Suggestions are given under "possible discussion" as to points which might be brought up in further discussion of the experience. In many instances the social-science implications of a natural-science experience can be brought out in the discussions. It is assumed that no kindergarten teacher will have occasion to deal with all or even half these experiences in any one school year. However, in order that the teacher may appreciate and be prepared to develop many science interests which will arise during the year, a wide variety of specific experiences has been set down.

The World About Us

ELEMENTS AND FORCES OF NATURE

AIR

- A. Take a deep breath of air into your lungs.
- O. You can feel the air pushing out and expanding your lungs. Air can fill space. Air can push.
- A. Blow up a balloon.
- O. Air fills the balloon just the way it fills your lungs.
- A. Watch the man at the filling station putting air into your tires.
- O. Air fills the tires. It makes them stretch. Air can hold up great loads. It can even lift the car up from the ground.

A. Put a cork stopper in an empty bottle. Try to float the bottle in a pan of water. Put a cork stopper in a bottle filled with water. Try to float this bottle.

O. The bottle filled with air will float. The one filled with water will not. Why?

A. Blow into a small bottle.

O. A whistling sound comes from the bottle. People make music by blowing through such instruments as the tuba, piccolo, flute, saxophone, oboe, etc.

A. Watch or help the teacher syphon the water from the fishbowl. Submerge a piece of rubber hose in water. Pinch the hose while both ends are under water. Observe the air bubbles in the water. When there are no more air bubbles, that means that all of the air is out of the hose. Only water remains in the hose. The teacher places her two thumbs over the ends of the hose so that no water can get out and no air can get in. Now she puts one end into the water in the fishbowl and the other into a container which is on a lower level than the fishbowl.

O. As she removes her thumbs from the ends of the hose, the water rushes through the hose. Since no air can get in, the water from the fishbowl continues to run out into the container. It keeps rushing until all the water is out. Now the hose fills with air. Put it back into the water and pinch it again. What happens?

A. Make your own syphon. Bend a straw so that it looks like a "U." Put one end into a glass. Put the other into your mouth and draw all the air out of the straw.

O. The water will rush into the straw and it will continue to rush out until the glass is empty.

A. At a time when it seems rather cold in your kindergarten room, climb up to the top of the jungle gym or, if you have a balcony, go up into the balcony.

O. It will feel much warmer up there because the warm air rises.

Possible discussion: Air is all about us. All space not filled with something else is filled with air. An exception to this would be a vacuum, a space from which all air had been artificially pumped. Could you live in a vacuum? Do plants need air? Do animals? Do fish? What is the difference between dead air and fresh air?

WIND

A. Fan yourself with a piece of paper.

O. The air moves back and forth before your face. It makes a breeze, a small wind. Wind is simply air in motion.

A. Watch the wind blowing leaves, bits of paper, or snowflakes.

O. It lifts them up, whirls them about, carries them a little way, and then drops them. Often it blows them in circles. Air often moves in upward currents.

A. Open a milkweed case and toss it into the wind.

O. The seeds open like little parachutes, and the wind carries them up and off. Some drop near and some are carried great distances.

A. Toss soap bubbles into the air

O. If the wind is gentle it will lift them and carry them high into the air. If the wind is too strong it may break the bubble.

A. Watch to see what the wind does with the smoke as it comes from the chimney.

O. Sometimes the smoke will be lifted up and up. Sometimes it is blown far away, and sometimes there is so little motion in the air that the heavy smoke just settles all around.

A. Make a paper windmill and hold it in the wind. Blow on it.

O. The speed of the wind will change as the force of the wind changes.

A. Run with a paper windmill.

O. When you run you push the air aside, and the motion of the moving air turns the windmill very fast.

A. Make a small sailboat of wood, paper, cork or a walnut shell. Put it outside in a pan of water.

O. If there is a wind it will push the boat. If the wind is not moving you can make a breeze either by fanning or by blowing the air.

A. Make a kite, or perhaps watch some older child with his kite.

O. As the child runs into the wind with the kite, the wind carries the kite high into the air. Pulling on the string makes the kite stay up because then the wind has something to push against. If you did not have the string attached, the wind might blow the kite for a bit. But then in some spot where the air was still, the kite would simply drop to the ground.

A. Recall your experience in an airplane.

O. Occasionally the airplane made a sudden dip or drop. This was when the plane went through a bit of air that was not very active.

A. Wet two sponges. Hang one in the wind and the other in a sheltered corner.

O. The sponge in the wind will dry more quickly than the other. The bits of water vapor are carried away more quickly by the wind than by the comparatively still air.

CLOUDS

A. Watch the clouds either from your window or by lying on resting rugs on the grass.

O. Some clouds are dark and heavy looking. Some are light and fluffy. When the dark clouds pass over the sun they make shadows on the earth and hide the sun. The clouds move sometimes fast and sometimes slowly, depending on air currents. Clouds are made up of tiny drops of moisture.

A. Imagine various forms in the clouds, i.e., ships, trees, animals, etc.

O. Clouds are ever-changing in shape, due to the movement of air

FOG

A. On a foggy day, try to see the shape of certain familiar buildings or trees near by.

O. It is difficult to see through the fog. A cloud near the earth is called fog.

A. With the teacher's help, make some fog. Fill a milk bottle with hot, but not boiling, water. Over this hold a pan filled with ice or ice-water.

O. The warm air rises from the bottle; as it strikes the bottom of the cold pan, the tiny drops of water in the air suddenly cool, and you are looking at fog.

DEW

A. Feel the grass very early on a still, warm, summer morning. Feel it again after the sun has been shining for some time.

O. At first the grass is wet, as if it had been rained on. The cooler air, touching the warm earth, has caused dew to form. Later the sun will cause the dew to evaporate.

EVAPORATION

A. Set a saucer of water in the sun, or note the puddles of water left on the sidewalk after a rain.

O. The sun and the wind will help to take the water away. The air, warmed by the sun, will change the water into tiny vapor drops. The warm vapor will rise and the wind will blow it away.

RAIN

A. Watch the rain from the window.

O. Sometimes it rains hard, sometimes gently. The rain may sink into the ground, it may evaporate, or it may run off into the gutters. Rain is moisture falling from the clouds. When the clouds can hold the moisture no longer, it falls to earth.

A. Wash a fishbowl inside and out and polish it until it is absolutely free from moisture. Place a shallow dish of water in the bowl, and then put a piece of glass over the top of the bowl. Let it stand overnight.

O. As the water evaporates, the drops of vapor will condense on the inside of the glass which covers the bowl. Tap the glass gently and you will find you are making it "rain" in the bowl. The moisture collected on the glass is like the moisture in the clouds. When the clouds are disturbed, when they move through cold air, and when they can hold the moisture no longer, then we have rain.

A. On a rainy day, put a broad, shallow, pan outside, away from the trees and buildings.

O. Note or actually measure the amount of water that falls into the pan in an hour or during the school session.

A. Try to hold an umbrella on a rainy, windy day.

O. The umbrella must be moved from side to side because sometimes the wind blows the rain this way and sometimes that.

A. Watch the storm clouds that are heavy with moisture.

O. Sometimes they drop their moisture over us and sometimes the wind blows them to another part of the town or city. Have you ever observed that it has rained in your block and it has not rained in the block where your friend lives?

A. After a rain, watch for a rainbow.

O. The rainbow appears only when the sun shines while there is much moisture in the air. The rainbow is made by the light shining on millions and millions of separate drops of moisture. Watch for a rainbow when the sun is shining on a spray, watering your lawn.

A. Hang a prism in the window on a sunny day.

O. As the sun shines on the many surfaces of the glass, rainbow colors appear.

Possible discussion: Why do we need rain, or what does the rain do for us? It waters the earth's vegetation; washes plants, pavings, and buildings free of dust; makes puddles in which to sail boats; provides water for drinking, washing, and bathing. We can be thankful for rain because it returns to the earth the moisture which has been taken away by evaporation. What happens in countries where they have very little rain? where they have a great deal?

THUNDER AND LIGHTNING

A. Watch the patterns made in the sky by the lightning.

O. Sometimes there is just a glow in the sky. Sometimes lightning makes clear-cut veins of light, and sometimes zig-zag patterns. The lightning is really great electric sparks in the air. Thunder is the noise that goes with the giant electric spark of lightning.

A. Listen to the thunder in a rainstorm.

O. Sometimes it sounds like rolling and rumbling, and sometimes like crackling and banging. Thunder is the noise caused by the very sudden expansion of air when it is heated by electricity.

A. Try to decide which you notice first, thunder or lightning. Actually, they occur at the same moment.

O. Sometimes the thunder seems to follow many seconds after the lightning. That is because light travels so much faster than sound. When the storm is very near, the sound of the thunder comes to us very shortly after the lightning. When the electric storm is very far away, it takes the sound longer to come to us. We can tell roughly by measuring the time between the lightning flash and the thunder how far the storm is from us.

A. Blow into a paper bag. Twist the top so the air is held in the bag. Hold the bag in one hand and strike it with the palm of the other hand.

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O. A loud crash results. Thunder is something like this, it, too, results from the sudden pushings of air

HAIL

A. During a summer rain when the air seems suddenly to turn cool, look for hail.

O. The hail "stones" will vary in size from those that look like tiny peas to those that are as large as great cherries. A hailstone can weigh more than a half pound, but most of the ones we see are not any larger than cherries or marbles. Hail is formed as the raindrops pass through cold air. These frozen drops get tossed again and again into the air, and get coating after coating of ice and snow. A hailstone may have as many as twenty-five coatings of ice and snow before it drops to the earth.

Possible discussion: What is the difference between hail and rain? Could hail do any damage to gardens? to windows? Could you use hail to freeze ice cream? Does hail stay on the ground for a long time? Why?

FROST

A. Note the sparkling white crystals on the grass on the first fall morning, when the thermometer registers around thirty-two degrees above zero.

O. The frost melts very quickly in the sun. Frost forms on the grass and other surfaces when the temperature is low enough to change the vapor of the fog into tiny ice particles.

A. Breathe on the windowpane on a very, very cold day.

O. If the day is not cold enough, steam will form on the pane. If the day is one on which the temperature is around zero, the droplets of moisture from your breath will freeze, and the frost will be left on the window.

A. Watch the steam from the teakettle rise and settle on a very cold windowpane. Do not have the teakettle too near the glass.

O. Heavy frost may form on the window. Frost patterns can be very beautiful. Sometimes when the frost forms a thick, white coating on the window, you can etch designs in the frost with your fingernail.

ICE

A. On a day when the temperature is somewhat below thirty-two degrees, observe if possible a small pond, a lake, and a river.

O. Ice forms in quiet water more quickly than where there is a current. Ice forms on shallow water more quickly than on deep water.

A. On a spring day when the temperature is somewhat above thirty-two degrees, observe, if possible, a pond, a lake, and a river.

O. The ice melts first where the water is shallow. The ice breaks up more quickly where there is a current.

A. On a day when the temperature is around zero, put out a pan of water and watch the water turn to ice. Or watch the water as it turns to ice in a refrigerator.

O. At first, needle-like crystals of ice will appear. Later the water will freeze into a solid block of ice.

A. On a very cold day (preferably a sub-zero day) place outdoors two bottles filled with water. Seal one tightly and leave the other unsealed. After the water has had time to freeze, look at the bottles. The same experience may be had by placing the bottles in the freezing compartment of the refrigerator.

O. The bottle that was sealed, if it was completely filled with water, has broken. The bottle which was not sealed is whole, but it has a cap of ice which has been pushed up from the bottle. Water expands when it freezes into ice.

A. Bring the unsealed bottle into the room and let the ice melt.

O. When it melts there is only enough water to fill the bottle again.

A. Melt in separate glasses a piece of ice which you may find somewhere outside and melt a piece of ice which has been frozen in the refrigerator.

O. The water from the artificially made ice is clean and clear. In all probability the piece of ice which you picked up outside has left a residue of dirt.

A. Observe icicles hanging from the roof or bushes. Bring one inside. Watch it drip.

O. The icicle drips from the point. Icicles are formed by one drop running down over the other drops and freezing there.

A. Bring in a clod of frozen earth and let it thaw in a pan.

O. The frozen earth is very hard. When it melts it becomes soft and can easily be broken apart. Sometimes there are tiny seeds and roots in the clod. These will grow again if given a chance.

Possible discussion: What are some of the values of ice? Keeps food cold and fresh, can be used to freeze ice cream, is good for skating, and is beautiful to look at. What are some of the dangers? Ice makes the streets slippery, makes both walking and driving difficult. Ice which is not frozen hard enough does not support much weight and is therefore a safety risk. Heavy ice on wires and branches sometimes breaks them. Water freezing in car radiators and other non-expandable containers may cause great damage.

SNOW

A. Watch a snowstorm.

O. The snow seems to be pure white. The little flakes pile up and cover the ground with whiteness. When the wind blows the snow on the ground, the snow forms drifts. The snow is moisture dropping from the clouds. The flakes are formed high, high in the cold air.

A. Catch snowflakes on a dark surface, on your snowsuit or on a dark sheet of paper.

O. Each snowflake is beautifully patterned, each has three or six points. Snowflakes formed at different distances above the earth are of varying shapes.

A. Fill a glass bowl with fresh white snow. Bring it indoors.

O. The snow turns to water. The snow filled the bowl, but the water does not. Probably you will find particles of soot and dirt in the water. Let the water evaporate and you will be almost sure to find a residue of soot and dirt in the bowl. The snow which has come through the air over a city will be dirtier than the snow which has come through the country air.

A. Play in the snow.

O. Sleds and skis slide over the snow. Snowshoes hold weights on top of the snow. When the snow is moist, that is, when the temperature is slightly above or around the melting point, the snow can be made into balls and snowmen and snowhouses. Artists can model in snow.

Possible discussion: What does the snow do for us? It gives us a

chance to have lots of fun. It covers the ground protecting the roots and seeds from hard freezes. It provides moisture for the land in the spring. Why do some parts of the world have snow and others do not? How can there be snow on mountaintops in the summer? How do people live differently in those parts of the world in which they have many months of snow from the way they would live in parts of the world having no snow?

SLEET

A. Notice how the sleet beats on the windows and how it stings your face or freezes on the windshield.

O. Sleet sometimes gives trees and bushes sparkling coverings. Sleet melts into water or freezes into sheets of ice. It is made up of droplets of ice that have been formed from partially melted snowflakes.

FIRE

A. Rub your hands together very fast.

O. They get very warm. They feel almost burning hot. Rubbing two sticks together will make them so hot that they will catch fire, but it takes much rubbing and much time to produce the fire in this manner.

A. Watch someone striking a match.

O. The flame bursts forth immediately. Certain chemicals combined with friction (rubbing things together) will produce fire instantly.

A. Watch some adult as he lets the sun shine through a magnifying glass onto small bits of paper.

O. The paper will begin to smoke, and then it will burst into flames. Fire can be made in this way by great heat.

A. Watch an adult place a glass over a lighted candle which he has set on a saucer.

O. The flame will burn for a few seconds and then go out. Fire must have oxygen to burn. Oxygen is in the air. When the oxygen under the glass has been used up, the candle goes out.

A. Watch an adult place a stubby candle on a saucer. Observe how he scatters flour on the lighted candle.

O. The flame goes out immediately. Fire needs air, and the flour crowds the air away from the fire. It smothers the fire.



Walters—Summit School, St. Paul, Minn.

Fun with Electricity—"It Lights!"

A. With the teacher, examine the fire extinguisher in your room. Observe how it works.

O. Note how the force stored up in the extinguisher sends the spray many feet. The spray may be the kind that smothers the fire, or it may be the kind that sets up a chemical interaction to put out the fire. *Possible discussion:* Fire is **NOT** a plaything! Extreme caution must be used in any situation where fire is concerned. What else can you use to smother fire besides flour? Sand, wet towels, or woolen blankets. In case of fire, how can you get the fire department quickly? How do the firemen work to put out a fire?

ELECTRICITY

A. On a day when the air is cold and dry, walk across the rug, dragging your feet as you go. Then touch something made of metal, or touch another person.

O. An electric shock results. Sometimes a spark may even be seen. Electricity is all about us. Electricity which is moving can be made to light bulbs, ring bells, and do many other things.

A. Hold a piece of paper in your hand as you drag your feet across the rug.

O. Put the paper against the wall. The electricity will make the paper stick to the wall.

A. With the help of an adult, connect a three-volt bulb to the two binding posts of a dry cell.

O. The bulb will give light because the electricity from the battery is moving through the bulb and back through the battery. Electricity must always go in a complete circle in order to give light or furnish power. If you remove one of the wires, the light goes out.

A. Turn on the light switch in the room.

O. The light goes on because the electricity is coming in through one wire, passing through the light, and going out through another wire. As the electricity goes through the tiny wire filament in the bulb, the electricity rubs so fast that it makes a great deal of heat. The wire becomes not red hot but "white hot," and thus it gives light. *Possible discussion:* When you comb your hair, do you ever hear or see the electric sparks jump from your hair to the comb? Did you ever see the electric sparks which sometimes are produced when the plug is being put into the iron? Think of all the things which you

have in your house which are operated by electricity: lights, toaster, razor, vacuum cleaner, etc.

MAGNETIC ATTRACTION

A. Hold a magnet (horseshoe or bar) over some nails.

O. The nails will cling to the magnet. The magnet has within it the power to attract certain metals. Iron and steel are most easily attracted.

A. Rub a screw driver with a magnet. Now try to pick up nails with the screw driver.

O. The newly magnetized screw driver will now pick up nails. Magnetism can be transferred from one magnetic substance to another or it can be induced electrically.

A. Place a needle, nail, or paper clip in a tiny boat made of paper or cork. Move a magnet through the air immediately above the boat.

O. The boat will move across the water because of the magnetic force. Magnetism is a force which we cannot see, but it can be made to work for us.

A. Place a nail between two equally strong magnets.

O. The nail will not move because the two magnets are pulling with equal strength. It is as though two children were pulling equally hard on two ends of a rope.

GRAVITY

A. Throw a ball high into the air.

O. The ball, as you know, will come back to the ground. This is the force of gravity at work.

A. Suspend a magnet from a string. Toss some paper clips up toward the magnet.

O. If the magnet is strong enough (and if you get any one of the paper clips close enough to the magnet) the paper clips will cling to the magnet. The magnetic attraction in this case is stronger than the force of gravity.

SOUND

A. Close your eyes and try to enumerate all the sounds which you hear

O. Sounds of nature: Bird calls, animal sounds, gurgling water, acorns dropping, wind sighing, etc.

Human sounds: Talking, singing, laughing, crying, walking, running, etc.

Mechanical sounds: Hammering, sawing, put-put of motors, car brakes, etc.

A. Make a funnel out of a piece of paper. Talk through the funnel.

O. Your voice sounds much louder. It is amplified. It goes, not in many directions, but all in one direction.

A. Hold a watch as far away from your ear as you can reach. Listen to the watch. Now put the watch on the wooden table. Put your ear close to the table.

O. You can hear the watch more readily when it is on the table and your ear is close to the table. Sound can travel through certain materials better than it can travel through air.

A. Put a nail hole in the bottom of two small cans. Run a long string from the bottom of one can to the bottom of the other. Tie large knots on the inside of each can. Stretch the string tightly so that one child has a can to speak into and the other has a can to put to his ear.

O. The child at the far end of the string will hear very well, even though the words are spoken very softly. Not the sound but the vibrations set up in the bottom of the can are carried along the string. The vibrations are set up then in the other can and so it is that the child hears the words made by the vibration pattern. Over the telephone the vibrations are carried by electricity along the wire.

Possible discussion: Some sounds are pleasant, others unpleasant. Why? Noise is produced by irregular vibrations; music by regular vibrations. Why do some rooms have echoes? Some surfaces reflect sounds; some ceilings are made to absorb sound and do not let it come back.

STONES

A. Gather stones and pebbles, preferably from the shore of an ocean, a lake, or a stream.

O. Some have sharp edges, some smooth. They have different colors and shapes.

A. Break a piece of chalk and note its sharp edges. Put many small pieces of chalk into a bottle and shake them.

O. Sharp edges get worn down. The sharp edges of stones get worn down by much bumping against other stones.

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A. Look at the side of a cliff.

O. Stones seem to run in stripes or strata.

A. Rub two pieces of soft chalk or lime together for some time.

O. A pile of sand remains.

A. Observe stones which appear to be made of many parts, many crystals. Experiment with making crystal formations by putting together a few drops of water and a tablespoon or more of any one of the following: salt, sugar, or alum. Boil the mixture and let it stand in the air.

O. The moisture will evaporate, leaving crystals in the pan. A piece of thread placed in the pan while the moisture is evaporating will cause the crystals to form round the string. The string may then be lifted and the crystals readily observed through a magnifying glass.

A. Bring in a piece of polished granite.

O. Granite is a very hard stone that will take a high polish.

A. Inspect a statue or monument in the neighborhood.

O. It is made of hard stone.

A. Visit a stone quarry.

O. Stone comes in such great pieces that it has to be cut up before it is used. It is so heavy that big derricks are used to lift it.

Possible discussion. Stones have many uses. Strong stone can be used for building. Why would not chalk be a good kind of stone for making a house? How did we use stones in planting flowers in flower pots? How, then, are stones valuable in a garden? Why do some cities use stone for paving?

SOIL

A. Compare a lump of school clay with a handful of mud and a handful of sand.

O. Clay holds together better than mud does. Mud cracks apart when it is dry. Sand just drops apart when it is dry. They are all different kinds of earth.

A. Visit a clay pit and a tile factory.

O. Clay is used to make bricks. It must be heated.

A. Visit a sand pit and a glass factory.

O. Sand is used to make glass. It must be heated.

A. Notice piles of dust along the roadside.

O. Dust is very fine earth which is blown about from one place to another.

- A. Notice tiny dust particles in the air.
 - O. Sometimes there is only a little and it sparkles in the sun. Sometimes there is so much dust in the air that it hides the sun.
 - A. Hang a wet towel in the window on a day when dust is blowing.
 - O. If the towel fits closely, it will catch the dust and not let it come through, and the air in the room will not be dusty.
- Possible discussion:* Dust storms. What will prevent much dust? Effect of grass on the yard. Bringing mud into the schoolroom makes the room dirty and gives extra work to the janitor.

THE SUN

- A. Watch a sunrise or a sunset.
- O. The sun rises in the east, sets in the west. There are beautiful color effects in the sky at these times.
- A. Follow the course of the sun through the day.
- O. In the morning, the sun shines in the east windows; at noon it is high in the sky and shines in through the southern windows if through any; in the afternoon, it shines in the west windows.
- A. Try to see the sun on a cloudy day.
- O. If the clouds are not too thick, the sun can be seen as a round, bright spot behind the clouds.
- A. Try to get away from your shadow.
- O. The shadow moves when the object making the shadow moves.
- A. Standing in a given spot on the sidewalk, have someone draw an outline of your shadow in the morning, at noon, and in the late afternoon.
- O. The shadow changes in size and position as the sun changes its position.
- A. Place a thermometer in the sun, then move it to the shade.
- O. It is much cooler in the shade.
- A. In the spring, note the ice on the south and north sides of the building.
- O. The ice and snow melt more quickly where it is sunny.
- A. Place one plant in sunlight, another in the dark. Inspect them after a few weeks.
- O. The plant in the sunlight is bright green and healthy; that in the dark is yellow and weak.
- A. Place a plant in the window and after a few days turn it around.

O. The plant leans toward the sun. The plant turns itself toward the sun.

A. Wet two sponges. Hang one in the sun, the other in the shade. Inspect them after an hour or so.

O. A sponge dries more quickly in the sun than in the shade.

THE MOON

(Note: If the teacher wishes to call the attention of the children to the moon, let her be sure that she selects a season when the moon will rise before their bedtime.)

A. Look at the moon every night for five or six nights. Draw or get one of your parents to draw a picture of the way the moon looks each night. Bring these pictures to kindergarten.

O. The moon changes its position and its shape every night.

(If it is possible to carry on the observations long enough, the children will see that the horns of the new moon point to the left, of the old to the right. If the child sees the moon sometimes near the horizon and sometimes near the zenith, he may notice that it seems larger and more reddish or golden when near the horizon.)

THE STARS

A. Look into the sky on any clear night.

O. There are millions of stars. Some are brighter than others. They change positions during the night and from night to night.

A. Notice the lights on a car. They look very small when the car is far away.

O. When the car comes nearer, the lights look larger. Stars are really tremendously large. Some are larger than our world, but they look small because they are so far away.

A. Look for the stars in the sky in the daytime. Now look at a lighted street light in the daytime.

O. The street light is scarcely noticeable in the brightness of the daylight. The stars are not visible at all in the daylight, but they are there all the time.

Possible discussion: The relationship of the earth, sun, moon, and stars. Too-detailed discussion is inadvisable, but kindergarten children can understand that the stars are suns like our sun only many, many hundreds of miles away. They will probably be interested in the ques-

tion of other earths, and the question of animal life upon other planets.

INANIMATE LIFE

SEEDS

A. Collect seeds of all kinds

O. Seeds may be gathered from plants that were flowers, vines, trees, grain, and weeds.

A. Make small paper boxes or cellophane envelopes and sort the seeds so that each kind is in a separate container.

O. Seeds are different in size, shape, and color. The size of the seed has nothing to do with the size of the fruit, flower, plant, or tree it may grow into.

A. Put bean seeds on moist blotting paper or a moist sponge; watch them day after day.

O. The seed softens and breaks open; then sprouts appear.

A. In the spring, plant some seeds in pots inside the building; others out-of-doors.

O. Seeds grow faster in the warm air of the room than in the cooler air outside.

A. Scatter wheat for the birds in winter. Feed the canary his grain. Bring corn for the school's chickens. Bring sunflower seeds for the school's white rats.

O. Some kinds of seeds are eaten by birds and animals.

A. Bring to school a variety of nuts. Open them and look inside.

O. Some kinds of seeds are eaten by people.

A. Bring to school fruit and berries, such as apples, peaches, grapes, strawberries.

O. Some seeds have coverings which we eat, while we throw away the seed itself.

A. Observe different ways in which seeds are scattered and sown.

O. Some (like maple, box elder, and ash) have winglike parts and sail through the air. Some (like dandelions, poplar, and thistles) have fluffy, feathery parts which help them sail through the air. Some (like burdocks and stickseeds) stick to the clothes of people and the fur of animals and are thus carried about. Still others (like beans, peas, and wild cucumber) grow in pods which burst open and in that way scatter the ripe seeds.

FRUITS

A. Make a collection of different kinds of fruits.

O. Fruits vary in size, color, and shape. Each fruit has a special name. Some common fruits (such as apples) have names for the different varieties.

A. Visit a grocery store and list the kinds of fruit found there. Note which are raised locally.

O. Some fruits can be grown in this vicinity, others are shipped in from far away.

A. Visit an orchard in the spring.

O. Fruit trees have blossoms in the spring. Each kind of fruit has its own kind of blossom.

A. Cut several kinds of fruit open.

O. Every fruit has its own special kind of seed.

VEGETABLES

A. Bring to school samples of many vegetables.

O. Vegetables differ in size, shape, and color.

A. Visit a grocery store and list the kinds of fresh vegetables there. Note which are raised locally.

O. Some vegetables can be grown in your vicinity. Others are shipped in from far away.

A. Visit the same grocery store a month or two later in the year. Note that some vegetables which were raised locally a month ago are now being shipped in.

O. Even if a vegetable will grow in your climate, it will not grow there at all seasons of the year.

A. Visit a grocery store and list the kinds of canned or frozen fruits and vegetables which are on sale.

O. Some foods can be kept fresh easily, others keep best when canned, dried, or frozen.

A. Visit a vegetable garden if the school has no vegetable garden of its own.

O. Some vegetables (like peas and beans) grow on vines. Some (like potatoes and carrots) grow beneath the ground. Some (like lettuce and cabbage) grow on the ground.

A. Have a picnic on which you use the vegetables from the school garden.

O. Vegetables are good to eat. Many raw vegetables are good to eat. (Carrot sandwiches are of particular interest when the carrots have been raised by the kindergarten.)

Possible discussion The value of seeds, fruits, and vegetables to mankind. The necessity in certain climates for preserving such food. Changes in attitudes toward food (tomatoes once thought to be poison, now recognized as excellent food). The value of fruits and vegetables in the diet. Industries of various sections greatly affected by what is raised there (flour in the Northwest, apples in the State of Washington, potatoes in Maine, oranges in California and Florida). Transportation changed by changes in demand for certain foods, refrigerated cars, faster freight trains, air express, etc.

TREES

A. Collect from the neighborhood samples of leaves from different trees. Mount one of each kind on the bulletin board.

O. There are many kinds of trees in the neighborhood. Each one has a name and each one has a special kind of leaf.

A. In the fall, bring in beautifully colored leaves.

O. Many trees lose their green coloring in the fall. Some turn brown, others red and yellow. Later the leaves drop to the ground.

A. Play in the fallen leaves.

O. The leaves which fall to the ground are dry. They rustle when you walk through them. They crumple up and break when handled.

A. Bring in a few twigs from which the leaves have fallen.

O. The scar left by a dropping leaf may be seen. Just where the leaf dropped off is a tiny winter bud.

A. In the late winter or early spring, bring in twigs and place them in water which is changed frequently.

O. The leaf bud begins to swell, and then the leaf unfolds.

A. Put pussywillow branches in water.

O. The fuzzy gray pussywillow changes to a green catkin, and then later a leaf forms.

A. Notice twigs of different kinds.

O. On some, the leaf buds are opposite each other, on others they alternate like steps.

A. Bring in twigs from apple and plum trees.

O. On the apple tree, the leaves come out first; on the plum tree, the blossoms come first

A. Note the change in the coloring of the elm trees as spring advances.

O. The buds show red, then yellow. Finally the leaves show green

A. Watch men cutting or chopping down a tree, or look at wood that has been sawed.

O. Different woods have different barks and different grains. Every tree shows rings of growth. From these we can count the years that tree has been growing.

Possible discussion: Trees give us shade. They are used by squirrels as homes and by birds as foundations for their nests. Trees keep the wind off. Some trees give us fruits. Other trees give us wood. Wood is important as a source of warmth in stoves. Wood is used for making things such as houses, furniture, boats, bridges, carts, pencils, toys. Men who work with trees and wood are called lumbermen, carpenters, cabinetmakers, etc., according to the exact nature of their job.

GRASS

A. Pull up a blade of grass and examine the roots.

O. The roots are very tender and will not grow if stepped on.

A. Feed grass to the rabbits. Watch cows, sheep, or horses grazing

O. They are using it for food.

A. Slip a blade of grass from its root case and eat it.

O. It tastes rather good.

A. Scatter some grass seed on black earth, and keep the earth well watered.

O. Grass grows quickly under moist conditions.

A. Drop grass seeds into a moist sponge. Keep sponge moist by spraying every day.

O. In a day or two the sponge will be covered with new grass.

Possible discussion: Value of grass as fodder. Value of grass in holding down the dirt and keeping the lawn clean. Necessity for one's remaining off the grass, particularly off new grass.

FLOWERS AND GARDENS

A. Walk in the woods and bring back a single sample of each kind of wild flower seen (except for those which may be protected by law).

O. Wild flowers differ in shape, color, and size. Every flower has a name of its own.

A. Bring in a few wild-flower plants with their roots; plant them in the school garden.

O. If the garden is like the place from which the flower came and if the plant is transplanted carefully, it will grow.

A. Notice particularly wild crocus and anemone.

O. They are protected from the early spring cold by a soft fuzz.

A. Plan a school garden of either flowers or vegetables. Consider the things to be planted, how and in what order they should be planted.

O. Some things grow more quickly and easily than others. Radishes grow quickly, tomatoes slowly.

A. Draw a plan of the garden plot on a large piece of paper. Plan a space for planting each kind of seed, and follow the chart.

O. Some things take more room than others. Summer squash and pumpkin vines will run over much space.

A. Prepare the ground by spading it up, breaking up lumps, perhaps adding fertilizer. Rake it smooth.

O. Ground must be prepared before a garden is planted if the plants are to grow well.

A. Use a long board or a string to guide the planting.

O. Rows must be straight so that one can walk in the garden without stepping on plants.

A. Plant some seeds in rows, others in holes at distances suggested on the package of seeds.

O. Some plants grow best when planted thick and later thinned out. Others need much space from the beginning.

A. Water the garden frequently, but gently.

O. Plants need moisture. Water from a hose held too near the ground will dig up the seeds and young plants.

A. Hoe the garden.

O. The ground must be kept loose so that the roots can get moisture and air.

A. Pull out the weeds.

O. Weeds choke other plant life. They are very sturdy and have tough roots.

A. Bring into the kindergarten some of the pretty weeds (thistle, smart weed, dandelions, devil's paintbrush).

O. Many weeds are pretty, but they should be destroyed in places where we want more useful plants to grow.

A. Find the seeds in the weeds.

O. Some weeds have many seeds and so can spread rapidly.

A. If a school garden out-of-doors is impossible, plant seeds inside in an old sandbox or in flowerpots or cans. Keep in the sun, and water well.

O. Seeds germinate and plants grow if they are warm, have sunlight and water.

A. Make a rock garden in an old sandbox, by using a pan of water for fish or turtles, arranging a few small potted plants, and filling in the space with stones and sand.

O. Compare with miniature Japanese gardens and outdoor rock gardens. Why should anyone have a rock garden?

A. Visit a greenhouse.

O. Different temperatures are given to different plants. The air in most of the rooms is warm and moist. No weeds are allowed to grow. The stage of development of the different plants depends upon the date when they were planted.

A. Plant grass and grain seeds in a terrarium.

O. The terrarium is in some ways like the greenhouse. The moisture cannot evaporate because of the glass cover, and so the plants are kept moist. The plants in the terrarium grow very fast but are not very hardy.

A. Cut the bottom from a carrot. Scoop out some of the inside. Turn upside down, fill with water, and hang in a window.

O. The foliage will start to grow from what is now the bottom.

Possible discussion: If we want to keep on having wild flowers in our woods, we must take care of them and not pull up the roots. Flowers are beautiful. Many flowers have pleasant odors. To be successful, a garden must be carefully tended. What are the advantages of greenhouses? What things have people made which are copies or imitations of flowers? (Wallpaper, dress goods, perfumes, artificial flowers for hat or dress trimming, or table decoration.)

PLANTS

A. Start pansy, aster, and tomato plants from seeds. Start geranium plants by leaving slips of the plant in water. Start a sweet-potato vine by placing a sprouted sweet potato in a jar partly filled with water,

setting it for several days in a dark place, and then bringing it out to the light.

O. Each plant can be rooted most easily by some special kind of treatment.

A. Make some paper boxes. Dip them in wax to make them waterproof. Transplant into them any plants which cannot be used in the school garden. Take them home.

O. With care, plants can be moved from one place to another without injury.

BULBS

A. In the fall, bring into school a variety of bulbs.

O. All the bulbs are hard and dry. The different kinds vary in size and shape. Some bulbs are planted in the fall. Others will be killed if the winter weather is too severe.

A. Plant bulbs (tulip, crocus, etc.) outdoors in the fall. Watch them early in the spring

O. The green shoots appear almost before the snow is gone.

A. During the winter, plant bulbs (narcissus and hyacinth) in flowerpots, using pebbles to support them and giving them plenty of water. Place in a dark place.

O. The root side of the bulb must be down. The roots will start in the dark.

A. Move the rooted bulbs from the dark to a place in the sunshine.

O. The sickly yellowish color of the plant soon turns to green

A. Continue to observe the growing plant.

O. Soon flower buds appear. After a time the flower disappears. With some plants, seed pods will form. The narcissus will form seed pods if pollen from one flower is introduced into another. Most bulbs multiply by growing a second bulb beside the original one.

A. Put the bulb of a paper narcissus on a plate.

O. This bulb will grow without water or dirt. It takes nourishment from the air.

Possible discussion: The bulb is the form in which the plant rests through the winter. The bulb contains food for the plant which will start to grow when the rest period is finished. What kinds of bulbs can you think of which are really plants at rest? (Tulips, hyacinths, crocus, narcissus, tuberous begonias, onions, etc.)

ANIMATE LIFE

BIRDS

A. Watch for birds in the late fall.

O. Some are flying south. Some stay in the North all winter.

A. Plan some way to feed the birds in the winter. Put melted suet and seeds in half an orange skin, then hang on a bush. Tie pieces of suet to the branches of trees. Put a sheaf of wheat on a high post in the school yard. Scatter crumbs. Build a feeding station for birds. Trim a birds' Christmas tree with strings of popcorn and dried fruit.

O. When the earth is frozen and covered with snow, the birds have difficulty in finding food. Birds will keep coming to a place where they are fed. Birds eat suet, crumbs, dry berries, etc.

A. In the spring, watch for the robins, and observe them.

O. Robins have reddish-orange breasts. They look unusually plump in the spring. Robins sing little during the day, but much in the early morning and at sunset. They have various calls. When the robin flies, he steers and balances himself with his tail. He cocks his head, looking and listening for worms. When he finds a worm, he braces himself and tugs and pulls at it. The robin hops and runs.

A. Observe the robins building their nest.

O. Mother and father work together. They put dry grass, twigs, and string in the crotch of a tree or on a post or window sill, then bring mud to cement it. The robin sits in the nest and turns round and round, smoothing it with her breast. Nests are seldom used twice.

A. Watch the birds sitting on the nest.

O. Underneath the bird are usually four blue-green eggs. Mother and father take turns sitting on the eggs. It takes from eleven to fourteen days for the eggs to hatch.

A. Watch the baby robins.

O. The tiny babies have no feathers and cannot see. Their mouths are open all the time, chirruping and crying for food. Later the feathers appear. The breast of the young robin is speckled. His tail is not yet long enough to let him balance well. He is awkward when he first tries to fly, but learns quickly.

A. Watch other birds common to the locality.

O. Each kind of bird has its own coloring and its own habits in nest-making.

Possible discussion: What do the birds do for us? Why does the gov-

ernment sometimes make laws prohibiting the killing of some kinds of birds?

SQUIRRELS

A. When squirrels are near, put out peanuts and nuts with very hard shells. Observe the squirrels.

O. The squirrel picks up the peanut with his front paws. He turns it round and round, cracks the nut, drops the shell, and eats the nut. When he is satisfied, he tucks another nut into his mouth and scuttles off in a hurry.

A. Follow the squirrel and watch him bury the nut

O. Usually he buries the nuts with hard shells and the peanuts which he has not eaten.

A. Sit very quietly on the ground, holding a peanut in your outstretched hand.

O. If you are very, very still, a squirrel may come and take the nut.

A. Invite squirrels into the kindergarten by first placing a basket of peanuts just by the door and later moving them just inside.

O. If you do not frighten them and if you feed them, squirrels will become friendly.

A. Trim a Christmas tree for squirrels by tying peanuts on the tree. Place it outside the window.

O. Several squirrels may come to it.

Possible discussion: Squirrels like to eat nuts. If there are no nut trees in the vicinity, what do squirrels eat when we do not feed them? The ground will soften the hard shell of a nut. How do they store food for winter? How do we store our food for winter?

FARM ANIMALS

A. Visit a farm in the spring after the baby animals have been born (cow, sheep, pig, horse, duck, chicken, turkey) Listen to the mothers and the babies.

O. Each animal is different from the others. Each mother uses different sounds when she wants the babies to come to her.

A. Compare the babies with their mothers.

O. The babies are smaller. They are sometimes a different color. They are clumsy.

A. Note the homes prepared for each kind of animal.

O. Each animal thrives best in some special kind of home.

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A. See what kind of food each animal eats.

O. Different animals eat different things.

A. Hunt for eggs if the farm is one where the hens roam over the barnyard.

O. Hens lay eggs in strange places, though usually they lay in the nests which the farmer provides.

A. See the eggs (chicken, turkey, duck) in the incubator.

O. The air in the incubator is kept at an even temperature. Every day the farmer turns the eggs. Eggs of different fowl are different. You can tell what will hatch from an egg by its size, color, and shape.

A. Watch a cow being milked.

O. The cow must be milked twice every day. If she does not have good grass and other good food, she will not give much or rich milk.

A. Watch the milk being separated.

O. This is a quicker way to get the cream than by waiting for it to rise to the top of the milk. The stable and pails and everything that touches the milk are kept very clean.

A. Watch the farm horses at work.

O. The horse pulls the wagon and the plow, the harrow and the drill, and the mower and the rake. In the fall he will help bring in the hay and grain from the fields. Some farmers use machinery in place of horses.

A. Inspect the barns and silos.

O. Food is stored for the animals to eat in winter.

HENS

A. Bring a setting hen and eggs to the kindergarten. Build a nest for her in a large cage, using hay, excelsior, or the grass from Easter baskets. Place the cage in a quiet place and visit the cage once a day.

O. The mother hen gets off her nest only to eat and drink. She turns the eggs with her feet and wings. The eggs hatch in three weeks.

A. Keep the mother hen supplied with food and water.

O. The mother hen likes corn, lettuce, and fresh grass.

A. Build a chicken house and yard outdoors for the mother hen and her chickens. Watch them there and feed them.

O. The baby chicks like well-chopped hard-boiled eggs, milk, lettuce, and a mash prepared from cracked wheat and corn. The mother hen teaches the chickens to scratch for worms and bugs.

A. Watch the chickens as they develop.

O. When they are first hatched they are all wet and thin-looking. Soon their down dries and they look fluffy. As soon as the chickens are dry, they can run about. When they are three or four weeks old, their feathers begin to grow. Then they try to fly.

A. Put up some poles for roosts.

O. When they are big enough the chickens like to go to roost. When they are little, they sleep under the mother's wings.

A. Watch the chickens drink

O. They have no muscles in their throats; so they hold up their heads and let the water run down.

A. After the chickens have been taken back to the farm, bring some turkeys, ducks, geese, or guinea hens to take their place in the yard.

O. Different fowl have different appearance and different habits and calls.

Possible discussion. What does each one of the animals do for people? Why do some farmers use machinery instead of horses? Why are most farms out in the country instead of in the city? Does a city need to have farmers near it? Why? How does the city get its milk?

DOGS

A. Go to some child's home to see a mother dog and her puppies.

O. The puppies are very wobbly on their legs when they are young. The mother dog has milk for them. She needs to have good food while she is nursing the puppies. She teaches her puppies. She calls to them, noses them around to put them where she wants them, and picks them up in her mouth. The puppies do not all look alike.

A. Bring a dog to kindergarten for a day's visit.¹ Build a play yard for him with blocks. Have milk, dog biscuit, and a bone ready for him.

O. The puppy likes to be petted for a while, but grows tired of being handled too much. He needs a time for quiet and rest. Care must be taken in picking up the puppy. Support him by putting your arm under his legs as you pick him up.

A. Let the dog exercise at rhythm time.

O. He will walk and run with the children. He cannot skip or dance.

¹ Pet rabbits, kittens, lambs, and goats also may be visited at the homes of the children or brought to kindergarten for short visits

WHITE RATS¹

A. Bring a pair of white rats or mice to kindergarten. Keep them in an empty sandbox and provide a cage in which there is a wheel.

O. The rats will run about the sandbox, but will not jump out unless it is on the floor or very near a chair or other piece of furniture. They need exercise and get it by running in the wheel.

A. Keep a supply of food for them.

O. Rats like milk, bread, something green like lettuce, apples, sunflower seeds. A mash may be purchased for them. In winter it is well to give them cod-liver oil.

A. Notice their long sharp teeth. Put a bone in their cage.

O. They like to have something to gnaw on. If they do not wear down their teeth by gnawing, the teeth will grow too long.

A. Watch them clean themselves.

O. They lick and wash with their paws. They are very neat.

A. Keep paper in the cage. Just before nesting time, put in an empty chalk box.

O. The rats like to tear up papers. Just before the mother is to have her babies, the rats will busy themselves by making a nest of torn paper. The mother rat likes to hide her babies in the torn paper. She will fill the chalk box with the torn paper and keep the babies snug and warm and hidden there.

A. When the babies are born, remove the father rat from the cage.

O. The father rat is no help to the mother at this time. Sometimes he even does harm to the babies.

A. Watch the baby rats.

O. The mother has from eight to fourteen babies. The babies are tiny pink things without fur. They have long tails. They cannot see or run. They squeak for food.

A. Watch the mother feed her babies.

O. The mother rat has milk for the babies.

UNUSUAL ANIMALS

A. Visit a zoo. Observe the different animals.

O. There are many kinds of animals, which do not naturally live in

¹ White mice, guinea pigs, hamsters, and chipmunks may be brought in in place of white rats. Chipmunks are interesting to watch and study, but they cannot be handled, and they are not so likely to reproduce in the kindergarten as are the mice, rats, guinea pigs, and hamsters. The hamster is the most prolific of the animals mentioned. The gestation period is but 18 days.

this vicinity, but which can live here if special arrangements for homes and food are made. The raccoons need trees to climb. The monkeys must be kept warm in winter. The bears need a pool to splash in so that they may keep cool during the warm days. Each animal makes a different noise.

A. Report on animals seen at a circus. Make models of them from plasticine.

O. Elephants, ponies, monkeys, bears, zebras, tigers, lions, and giraffes all have distinguishing characteristics.

GOLDFISH

A. Select an aquarium, if possible rectangular in shape and with a wide top open to the air. Prepare it for goldfish. Have an inch of coarse sand in the bottom. Plant green water weeds in this sand. Put a small amount of water in it until the weeds become rooted. Then add more water very gently so as not to disturb the weeds.

O. The fish need air. The weeds help air the water and serve as a food. The gravel or sand holds the roots of the weeds in place, and makes the aquarium look neat and clean.

A. Put some snails into the aquarium.

O. The snails eat the green scum which forms on the sides of the aquarium and so help keep it clean. The snails are interesting to watch.

A. Feed the fish a few grains of prepared fish food once a day or every other day.

O. Fish will overeat and die if too much food is given them.

A. Watch the fish to see if any of them get spotted or if any begin to tip over on their sides. If this happens, take out the sick fish and put it in a bath of salt water for a day.

O. Water with considerable salt in it will often cure a sick goldfish.

GUPPY FISH

A. Fix an aquarium in a warm place or insert a heating unit. Introduce the guppies.

O. Guppies are tropical fish and need warm water if they are to grow. Keep the water temperature 70° or above.

A. Try to count the guppy fish.

O. They are so tiny that it is hard to count them. Sometimes they are as long as half an inch, but usually are smaller.

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A. Watch the babies growing inside the mother.

O. You can see right through the mother. The babies are no bigger than a pinhead.

A. Keep many weeds in the aquarium.

O. The babies hide in the weeds so the big fish cannot catch and eat them.

Possible discussion: Different fish grow best in different surroundings. Some like warm water, and some cold. Most fish lay eggs, but guppies are born directly from the mother's body. What do we use fish for?

TURTLES

A. Bring a variety of turtles into the kindergarten.

O. There are snapping turtles, mud turtles, Japanese turtles, and other less common varieties. The Japanese turtles are small, with green backs and an under shell in a yellow design. The snapping turtle has a sharp, sawlike ridge on its back. The painted terrapin or pond turtle has a mottled red border on its upper shell and beautiful markings on the under shell.

A. Build a pen for turtles out of blocks. Put a large pan of water into the pen.

O. Some of the turtles like to be in the water practically all the time, others only part of the time.

A. Feed the turtles.

O. Turtles have no teeth. They like to eat earthworms and green water plants. Japanese turtles like ant eggs. Some turtles feed only under water.

A. Bring in and examine a turtle egg.

O. The egg is soft, white, and leathery. The mother buries the eggs in the sand.

A. In the fall, put turtles in a box of dirt in a cool place.

O. The turtles will burrow down into the earth and remain there for the winter.

FROGS AND TOADS

A. From a slough or pond bring in toad or frog¹ eggs. Place them in an aquarium filled with water from a pond. The water should contain mud, stones, and sticks.

¹ Frogs' eggs may often be purchased from fish stores. The frog is a little slower than the toad in attaining maturity.

O. There are hundreds of little white eggs in a jelly-like string. They will not develop in ordinary city water.

A. Watch the tadpoles as they hatch and develop.

O. At first the tadpoles are tiny, wriggling, jelly-like things. Then they take the form of a body and a long tail. The back legs develop first, then the front ones. The tail grows shorter as the legs and a distinct head develop. It takes from 25 to 60 days for a tadpole to develop the features of the grown toad or frog. In July or thereabouts the toad or frog will be ready to leave the water.

Possible discussion: There are some animals which live partly in the water and partly on dry land. How long can a frog or a turtle keep its head under water? How do frog and turtle eggs differ from hens' eggs? How do toads help the farmer? Of what use are turtles and frogs?

COCOONS AND MOTHS¹

A. In the fall, collect caterpillars of various kinds.

O. The woolly caterpillar does not normally spin his cocoon until spring, but sometimes if he is brought into a warm room, he will spin it in the fall. If the *Promethea* caterpillar (large and green) is supplied with leaves from the ash, wild cherry, or lilac, he will make his cocoon by folding the leaf around him. The *Cecropia* caterpillar is a fat, warty creature most often found in orchards. If he is brought in on a branch of his chosen tree, he may spin a cocoon inside.

A. Watch the caterpillar spinning its cocoon.

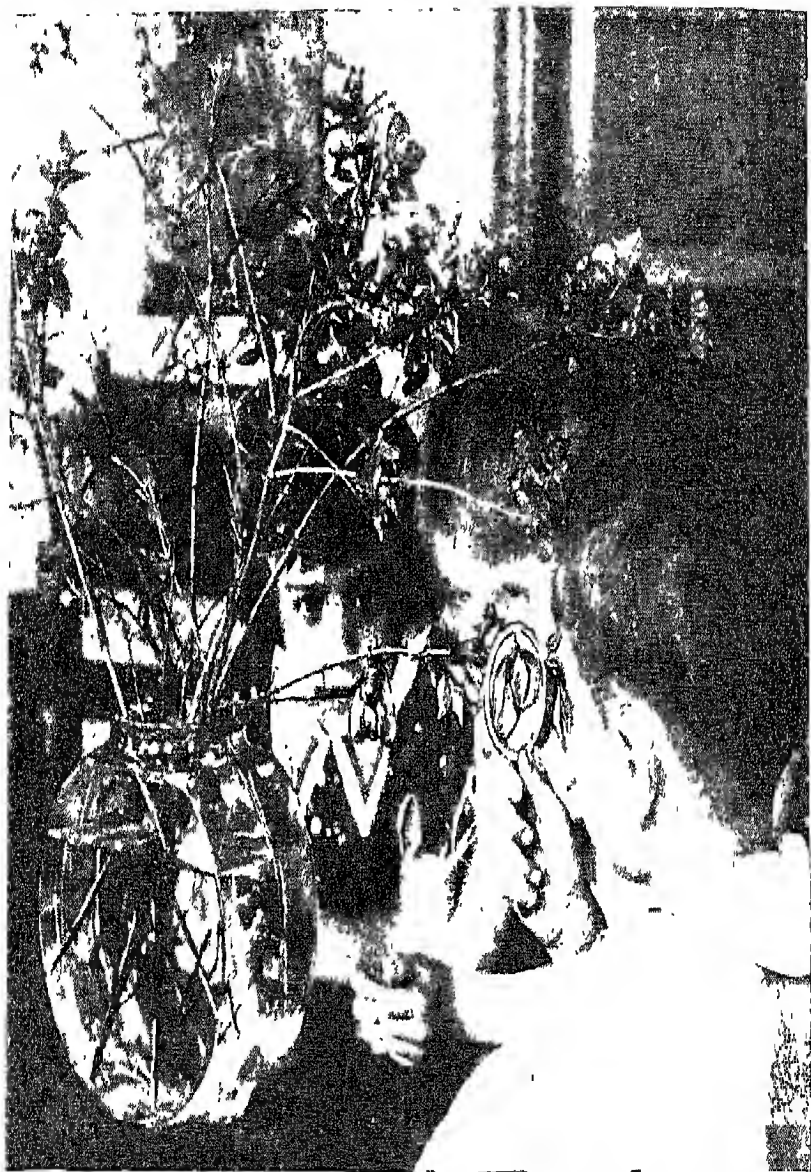
O. The sticky thread is spun from the region of the head.

A. Gather cocoons in the late fall or early spring. Look for special kinds on special bushes or trees. Keep cocoons cool and moist through the winter by sprinkling them occasionally.

O. Different kinds of caterpillars spin different kinds of cocoons in different kinds of places. If left in the woods, the cocoons would be dampened by winter snows and rains. We must make their surroundings indoors as much as possible like their natural home, if they are to develop normally.

A. In April or May, bring in twigs of the bushes which serve as food for the kind of moth you are trying to raise. Put them in water to force the development of the leaves. Bring the cocoons into the

¹ The development of butterflies, bagworms, and praying mantises may be followed in similar fashion



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A Promethea Moth Just Out of the Cocoon

warm room. Inspect the cocoons every day. Hold a cocoon for a few minutes in a gently closed hand.

O. Some day you will feel something move inside the cocoon. This is the pupa wriggling. After days of wriggling, he will break a little hole in the end of the cocoon.

A. Watch the moth work its way out of the cocoon.

O. The moth comes out of the end of the cocoon. At first the wings seem small and wet, and folded close to its caterpillar shape. After an hour or so, they will be stretched out. The male and female have different wing markings.

A. Cut open a pupa case which shows no sign of life.

O. Each kind of moth, each cocoon, and each pupa case is different from that of other kinds.

A. Watch the mother laying her eggs. If a piece of soft silk is provided, she will probably lay them on that.

O. The eggs are fastened onto the surface with a sticky substance. The eggs are brownish white. The moth lives only a few days.

A. Watch the eggs hatch. Put them near the young leaves.

O. The tiny grubs must have food if they are to develop. If you do not have the right kind of leaves for them, they will die.

Possible discussion: In how many forms do we find most living creatures? What advantage is there to different forms? Compare different creatures which have wings. What advantage have winged creatures over those which have no wings? Is there any advantage for the creature which makes a cocoon that is hard to find?

BEES¹

A. In May, get an exhibit glass case containing a section of hive and a swarm of bees. This case may be kept in an open window or may be connected with the outside by a wide glass tube. Watch the bees.

O. The bees go in and out through the tube, bringing back pollen (or bee bread) and nectar from neighboring flowers. They carry the pollen in leg pockets and nectar in honey stomachs. They store these foods in the cells.

A. Watch the queen bee.

O. The queen is longer and thinner than the other bees. Her

¹ Ants and grasshoppers may also be observed in glass cases in the schoolroom.

markings are different. She puts eggs into each of the cells which have been made ready by the worker bees.

A. Watch the other bees at work. -

O. The workers bring pollen and nectar. The drones are idlers.

A. Observe the cells of the queen bee.

O. They are larger than the ordinary cells. The bees which are to be queens are fed different food by the workers.

A. Watch the bees "dance."

O. The dances seem to mean different things, such as "Come, there is much nectar or much pollen," or "Dust off my wings and clean me off."

A. Watch the new bees emerge from the cells.

O. They are practically as large as the grown bees. They begin to work at once.

Possible discussion: What advantages are there in having people work together? Why should there be so many worker bees when there is only one queen to lay the eggs? Why do we call some people "drones"? What other creatures live in groups or colonies? In what ways is life made easier by group living?

PEOPLE

A. Look at your skin.

O. Your skin is lighter or darker than the skin of some of the other children in the group. Some people have very much darker or very much lighter skin than yours. Different families have different skin coloring. Different groups of people, different races, have different skin coloring. Their blood is like yours but the color of their skin happens to be different.

A. Are your eyes blue or brown or green? Are they large or small eyes? Do you have light or dark hair? Is your hair straight or curly? Are you tall or short?

O. Every person (except in the case of identical twins) has a different appearance from every other person. Wouldn't it be uninteresting if we all looked alike? How could we tell one person from the other?

A. Take turns in reporting the kinds of work which your fathers do.

O. There are many different kinds of work to be done. If all people did one kind of work, then we wouldn't have anybody to do all the other kinds which need to be done. Suppose everybody were a

plumber; a banker; a carpenter; a circus clown. Why would that be a good or bad thing?

A. Take turns in reporting the kinds of work your mothers do.

O. Many mothers are busy with homemaking. Others are doing some of the same work that fathers do

A. Let each child tell what he or she would like to be when he grows up.

O. Different people like to do different things.

A. Walk around the neighborhood and list all the different kinds of work which you see people doing.

O. Many new kinds of work will be discovered, and the need for many kinds of workers will be more fully appreciated.

A. Visit such places as the fire station, the grocery store, the greenhouse, the market, and the dairy. Or go out specifically to see such people as the traffic officer, the delivery men, the truckmen, the steamshovel operators, the painters, the carpenters, the mailmen, the street-car motormen, etc., at their work.

O. All these men are contributing to the welfare of the community in the work they are doing. They are also earning money that can buy food and clothing and other things which they may need or desire.

A. Invite persons who speak a foreign language to talk with your group.

O. At first the sound of the foreign language is amusing, but when certain phrases are translated and tried by the children, the sound does not seem so strange or unusual. Shortly the children will learn to appreciate not only that there are many different languages used, but also that even though these people do not speak the children's language perfectly, yet they are "lucky" because they can speak more than one language.

A. Have picture books with foreign texts on your library shelves.

O. We can enjoy the pictures even though we cannot always translate the text. People the world over have certain things which they all enjoy.

A FEW SIMPLE MECHANICAL FORCES AND DEVICES

A. Try to move a very heavy box of blocks. Now put the same load on a truck.

O. The load can be carried much more easily on wheels.

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A. Suspend a pulley from the top of the jungle gym or some other high place. Put a rope around the pulley and fasten to it a weight which is almost too heavy for you to lift. Now pull on the other end of the rope.

O. You can lift fairly easily the same weight with the pulley and rope which you could scarcely lift by hand.

A. Try to pry up a piece of wood which has been firmly nailed to a plank.

O. The longer the prying tool, the less energy you will have to use to separate the two pieces.

A. Tie a basket onto one end of the teeter-totter and put some heavy blocks in the basket. Now go to the other end of the teeter-totter and try to make the basket go up in the air.

O. At first the basket may be very hard to raise, but if you will pull the board toward you so that you have more and more board on your side of the balancing frame, you will find that the load becomes increasingly easy to lift.

A. Ride a tricycle very slowly up to a line. Try to stop exactly on the line. Now ride it very fast and try to stop on the line.

O. It is much easier to stop when going slowly than when going fast.

A. Ride a tricycle up to a line on a dry sidewalk and try to stop exactly on the line. Now pour some water on the sidewalk and try to stop just on the line.

O. It takes longer to stop on the wet than on the dry pavement. The wheels slip and slide on the wet pavement and do not hold the tricycle back.

A. Using the same kind of blocks, build two towers of equal height. Make the first tower with a small base and the second with a broad base.

O. The tower with the broad base is much more steady than the tower with the small base.

A. On a set of table scales place one at a time, a cup of steel ball-bearings, a cup of sand, and a cup of sunflower seeds.

O. No two of the filled cups will weigh the same.

A. Make a weighing device by fastening the exact center of a long block to a half cylinder. Place objects on the opposite ends of the long block of wood.

O. The end of the block on which the heavier weight rests will go down first. Check the accuracy of your scales with real scales.

A. Make a parachute. Tie strings to the four corners of a handkerchief, or any square of cloth. Tie the ends of the pieces of string to a single weight such as a metal washer. Hold the string, the cloth, and the weight in your hand, and throw the parachute into the air.

O. As the force of gravity starts to bring the parachute down, the air will push against the cloth and the parachute will sail rather than fall to the ground.

A. Make a pointed boat from a flat piece of wood. Work with or watch the teacher as she helps you make it into a paddle-wheel boat. Insert the paddle wheel between the two arms which are formed by sawing out the back middle section of the boat. Before inserting the paddle wheel, put two slightly twisted rubber binders around the axle of the paddle wheel. When the axle is in place, fasten the other ends of the binders to the back of the boat. Turn the paddle wheel round and round so that the binders have to stretch to their limit. Put the boat in a tub of water.

O. The boat will rush forward as the paddle wheel unwinds. The paddle wheel makes the boat move as the paddles push against the water.

A. Enumerate as many devices as you can think of which help people to move.

O. Scooter, roller skates, tricycles, cars, boats, escalators, airplanes, etc.

A. Enumerate as many devices or machines as you can think of which help people to do their work.

O. Steam shovels, derricks, cement mixers, piledrivers, vacuum cleaners, sewing machines, telephones, lawnmowers, etc., etc.

Possible discussion: All these devices have been developed because people have experimented and kept studying and learning more and more about how to control and utilize the elements and forces of nature. Now men we call scientists are learning to utilize new elements and to produce new forces. Men now know about atomic energy and it is hoped that one day they will learn how to put this energy to good purposes.

It is assumed throughout the foregoing discussions that the children will be encouraged to observe the beauty, power, and intricacies of

nature, the interdependence of man and nature, the interdependence of men, and man's power over nature. Some effort, such as the reliving of the experiences through dramatic play or manual activities, or the recording of the experiences through pictures or the dictating of letters, should be made to summarize or check back upon the experience, but in no sense should the kindergarten child be held responsible for giving back a long verbal factual report of the experience. As stated earlier in this chapter, the purpose of natural and social science in the kindergarten is not to supply the child with a vast fund of scientific information; rather it is to help the child to build up for himself an inquiring mind and a seeing eye. Oftentimes a bit of poetry is the best possible summary of either a natural- or social-science experience. Sometimes an idea which one has been struggling to formulate is found tersely set forth and summarized in a brief bit of poetry. *The Golden Flute*,* with its detailed index of interests and activities, offers many poems which might be used in this manner.

SUMMARY

In any community we find experiences which are of great interest and of great educational value to young children. Some of these experiences belong to the realm of natural science; some belong strictly to social science, most of them have a natural-science basis and a social-science implication. The number and kind of these experiences which will be offered to any kindergarten group will be determined by the interests of the children, the offerings of the neighborhood, and the knowledge of the teacher. It is most important for the teacher to know the possibilities of the community, to have accurate information on natural science and to understand the social-science implications of the experiences which the kindergarten children are having.

QUESTIONS AND PROBLEMS

1. In the 17th century, Comenius wrote that in the first six years the child may begin to know of "natural things . . . the names of the elements, fire, air, water, and earth, and learn to name rain, snow, ice, lead, iron . . . trees and some of the better known and more common plants, violets, grasses, and roses. Likewise the dif-

* See reference 52, p. 219

ference between animals; what is a bird . . . Of optics . . . what is darkness . . . light, and the difference between the more common colors, and their names . . . In astronomy, to discern among the sun, moon, and stars. . . . In geography, to know whether the place in which it was born and in which it lives be a village, a city, a town, or a citadel; what is a field, a mountain, a forest, a meadow, a river. . . . In chronology . . . to know what is an hour, a day, a week, a month, a year; what is spring, summer, etc. The beginning of history will be to remember what was done yesterday, what recently, what a year ago, what two or three years ago. . . . In politics, that there is in the state a chief ruler, ministers, and legislators, and that there are occasional assemblies of the nation. . . . The principles of dialectics may be so far imbibed as that a child may know what is a question, and what is an answer, and be able to reply distinctly to a question proposed, not talking about onions when the question is garlic. . . . Arithmetic . . . be able to count to 20 . . . and understand what is an even and what an odd number; likewise that the number 3 is greater than 2, and that 3 and 1 makes 4, etc. In geometry, to know what is small or large . . . thin or thick . . . an inch, a foot. . . . Music will be to sing from memory some little verses from the Psalms or hymns. As to mind and hand . . . to cut, to split, to carve, to arrange, to tie, to untie, to roll up, and to unroll. . . . Grammar . . . able to express in his own language so much as it knows of things . . . Care must be taken as to the method adopted . . . because . . . all children are not endowed with equal ability, some beginning to speak in the first year, some in the second, and some in the third."

Change this selection so that it applies to the present day.

2. From a university catalogue, we find the following subjects covered which Comenius did not specifically mention in the quotation given above: Agriculture, Anatomy, Anthropology, Architecture, Art, Bacteriology, Forestry, French, German, Greek, Home Economics, Italian, Journalism, Latin, Library Methods, Military Science and Tactics, Philosophy, Preventive Medicine, Psychology, Scandinavian, Sociology, Spanish, Speech, Veterinary Medicine. State for each of these subjects what beginnings, if any, could or should be given in the kindergarten.

3. For each of the following events which might be observed or reported by kindergarten children, list the natural- and the social-science information involved, and point out the implications which a teacher might lead her children to make.
- a. Jack's family ran out of gasoline while they were on a country road.
 - b. Helen reports that her family has a new telephone.
 - c. Mr. Smith broke his leg and is in the hospital.
 - d. Dora's sister was christened yesterday.
 - e. The postman has brought a special-delivery letter for the teacher.
 - f. The electric-light company is putting up a new pole in place of an old one.
 - g. There is a sign beside the lake which says, "No Skating."
 - h. Two children in the group have the same first and last names, but one of them has a middle name while the other has not.

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Primary: An Aquarium; Animals and Their Young; Animals Round the Year; Animals That Live Together; Birds in the Big Woods; Doing Work; How the Sun Helps Us; Insect Parade; Pet Show; Plants Round the Year; Useful Plants and Animals; Water Appears and Disappears.
Intermediate: Air About Us; Animals of the Seashore; Animals of Yesterday, Animals We Know; Animal Travels; Birds; Clouds, Rain and Snow; Dependent Plants; Earth a Great Storehouse; Electricity; Fire; Fishes; Flowers, Fruits, Seeds; Garden and Its Friends; Garden Indoors; Gravity; Insects and Their Ways; Living Things; Machines; Magnets; Plant and Animal Partnerships; Plant Factories; Reptiles; Saving Our Wild Life; Scientist and His Tools; Seeds and Seed Travels; Sky Above Us; Sound; Spiders; Stories Read From the Rocks; Thermometers, Heat and Cold; Toads and Frogs; Trees; You as a Machine; Water; What Things Are Made Of.

- Junior High: Adaptation to Environment; Ask the Watchman; Balance in Nature; Beyond the Solar System; Earth's Changing Surface, Earth's Nearest Neighbor; Fire, Friend and Foe; Foods; Heat; Light; Insect Friends and Enemies; Insect Societies; Life Through the Ages; Light; Matter and Molecules, Our Ocean of Air; Science or Superstition; Soil, Sun and Its Family; Water Supply; Ways of the Weather.* Row, Peterson and Co., Evanston, Illinois, 1941-1947.
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Audio-Visual Experiences in the Kindergarten

UP TO the present time the kindergarten has probably used audio-visual methods in education more extensively or at least as extensively as any other unit in the school system. Perhaps the terminology has not designated the methods as those of audio-visual education, but when one analyzes the kindergarten program, one finds that most of the activities engaged in by the five-year-olds are those which afford opportunities for learning through a variety of sensory experiences. Learning in the kindergarten is in no sense limited to those ideas and understandings which are conveyed solely through verbal and visual symbols. Learning in the kindergarten comes about through a wide variety of experiences, many of which are concrete and direct. If, for example, the kindergarten group is discussing squirrels and the way in which they prepare for winter, the information is not limited to that supplied by spoken and written words. Rather, the children go outside to observe and to listen to the squirrels as they scurry about the yard gathering acorns or perhaps coming to take the peanuts which the children offer. The children observe as the squirrels eat their fill and then tuck the extras in their cheek pouches and scuttle off to bury them in the ground or to store them in their holes in the trees. These firsthand experiences and observations are confirmed and supplemented by posted pictures, book illustrations, dramatizations, the use of art materials, story and song experiences and, whenever possible, by projected still or moving pictures.

Learning Through a Variety of Experiences. The whole history of early childhood education is filled with the effort of educators to pro-

vide opportunities for learning through a variety of experiences rather than through verbal and visual symbols alone. As far back as the fourteenth hundreds and early fifteen hundreds, we find Desiderius Erasmus trying to combat verbalism in education by advocating that children should be acquainted with familiar objects and animals. Erasmus not only discouraged mere word and memory learning but he suggested that such things as stories, pictures, and games and other informal methods of teaching be used in the education of young children. In the sixteen hundreds John Comenius produced the first picture book for children. The book, called *Orbis Pictus*, compares in some respects quite favorably with some of our newer pictorial educational materials. Each item in the pictures is numbered, and below each picture can be found both the English and the Latin names of the items depicted. Many of the statements which Comenius made concerning education are as modern as their counterparts in our own education and child-development books. Comenius suggested, among other things, that children should have pictures before they go to school, for both their pleasure and their enlightenment; that they should have pictures "that they may see nothing which they know not how to name and that they can name nothing which they cannot show." Further, he suggested that models or actual samples of the things studied be in the school, and he made a plea for the children to have opportunities to express what they know through pictorial delineation.

Jean Jacques Rousseau, in the seventeen hundreds, criticized the sheer verbalism of the education of his day. He suggested that the child's most profitable learning came through firsthand experience, and he deplored the fact that so much emphasis was put on the memorization of facts. Late in the seventeen and early in the eighteen hundreds Johann Pestalozzi became interested in the "object method" or the method of sense perception in teaching. He found untold numbers of opportunities for children to learn through actual experiences rather than simply through verbal symbols. He and others of his time made great fun of some of the parrot-like repetition of facts often called learning.

Friedrich Froebel in the eighteen hundreds stressed the importance of sensory experience in learning, and Madame Maria Montessori in the early nineteen hundreds went so far as to contend that a great

part of early childhood education might well be a matter of training through sense perceptions. John Dewey and others of our own time have stressed the importance of building up learnings and corroborating facts through a variety of media and experiences. Through the centuries those who have best understood young children have pointed out the futility of trying to teach solely through the use of abstract symbols; they have stoutly contended that the most profitable learning comes through a wide variety of experiences.

Audio-Visual Education in Its Broadest Sense. In thinking of audio-visual education, we must guard against the somewhat common error of confusing the field of audio-visual education with the materials and the tools of the field. So much emphasis has been put on the modern tools and so many of the tools are so startlingly new to education that the error is understandable. Our scientific age has provided us with radios, recorders, still films, motion pictures, the modern stereoscope, and even television. With all these, as educators, we must familiarize ourselves, but we must not overlook the many other experiences in our daily living which also provide opportunities for audio-visual education.

In its broader sense, audio-visual education includes at least seven and according to some categories many more types of experience. Edgar Dale, in his book entitled *Audio-Visual Methods in Teaching*,* has set up what he calls the "cone of experience." Each of the divisions in his cone represents a stage between direct experience and pure abstraction. The cone, as he suggests, "is merely a visual aid to explain the interrelationships of the various types of audio-visual materials . . . and shows that the sensory materials can be readily classified as they move from the most direct to the most abstract kind of learning." At the broad base of the cone we find that learning involves doing, and that direct experience, contrived experience, and dramatic participation form ascending levels of the base of the cone. In the middle section of the cone we find that the experiences are less direct, and that learning results from observing rather than doing. In rising levels, those experiences which provide opportunities for new learning are listed as demonstrations, field trips, exhibits, motion pictures, radio programs, recordings, and still pictures. At the

* See reference at end of chapter

tip of the cone we find that the experiences are increasingly abstract in their nature and that new learning results from the *interpretation of visual and verbal symbols*. It is suggested that many of the experiences may overlap and blend into each other but roughly the "cone of experience" can be conveniently subdivided into experiences involving (a) doing, (b) observing, and (c) symbolizing.

Kindergarten Experiences Which Provide Opportunities for Audio-Visual Education. There are of course hundreds of kindergarten experiences which might provide opportunities for audio-visual education. But for the purpose of clarifying our own thinking, let's consider together just a few of those experiences which might fit into the categories mentioned above. Because the concrete and direct experiences are at the broad base of the cone, it may have been assumed that these experiences are first and always the most desirable. At the outset, suppose we look into this assumption. Concrete and direct experiences are valuable. We do need many firsthand experiences and yet it is conceivable that in some instances the firsthand experience would be relatively meaningless if it were not broken down or supplemented by other experiences. Suppose the question arose as to how a locomotive can make a "whistle sound." It is probable that even though the children were taken to a locomotive and permitted to operate or to observe the operation of the whistle control, they would learn very little about how the "whistle sound" was produced. The children would, in all probability, learn much more about how a whistle sound is produced if an adult would help them to see and hear what happens (a) when air is forced through a small opening as through a small bottle or the lips; or (b) when steam forces its way through a small opening as in the whistling teakettle. In this instance is it not quite obvious that the observation of the demonstration would offer a better learning opportunity than the firsthand direct and concrete experience might have offered? Again, it is quite possible that a firsthand experience might be relatively meaningless if it were not supplemented by a variety of other experiences. For example, a group of children might actually have the opportunity to go to a fire station to see exactly how every piece of equipment worked, and yet if the group did not have opportunities to have their firsthand experiences supplemented, organized and summarized through other

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experiences such as discussions, dramatizations, picture-story materials, still and moving pictures, their learning might be spotty indeed. As we run through the following sampling of classified experiences we must remember not only that in specific instances one kind of experience may provide a better learning situation than another, but we must also remember that in general those experiences which supplement each other tend to strengthen the learning.

SPECIFIC KINDERGARTEN EXPERIENCES INVOLVING DOING

Direct Experiences

Planting a garden
Making a collection of seeds
Making place mats for a party
Setting tables for luncheon
Caring for pets or sharing housekeeping responsibilities
Making furniture for the play corner
Making Christmas gifts

Contrived Experiences

Setting up a store in the kindergarten
Experimenting with models of trains, derricks, elevators, etc.
Making a fire engine, train, trolley, or bus
Making models of harbor or street traffic
Building with blocks a city, farm, county fair, station, airport, etc.

Dramatic Participation

Playing house in the doll corner
Playing traffic officer, airpilot, fireman, deliveryman, storekeeper, etc.
Staging a play radio performance
Dramatizing stories from books, or making up and dramatizing a story
Playing teacher, doctor, nurse, etc

SPECIFIC KINDERGARTEN EXPERIENCES INVOLVING OBSERVING

Demonstrations

Observing a demonstration of the way in which the fire extinguisher works
Watching and listening as a guest musician plays his instrument
Watching a guest artist as he models in clay, sketches, or paints
Observing as the teacher cuts open a cocoon from which the moth has already emerged
Sitting back and watching the rhythmic demonstrations or gymnastic stunts of others
Observing to see how a certain child has made a particular article

Field Trips

Going out into the neighborhood to see how a steam shovel works
Going outside to observe the signs of seasonal change
Making a trip to the greenhouse to get rainwater for the fish
Going to a museum
Going to an aviary or a zoo
Exploring the building, health unit, principal's office, custodian's quarters

Exhibits

Having in the room a special museum case and changing exhibit materials; e.g., birds, animals, insects
Having a place for collections of such things as birds' nests, cocoons, seeds, leaves, stones, etc.
Going to other rooms to see special exhibits, e.g., Easter eggs, dolls and toys of different lands, etc.
Having models of different modes of transportation on display
Having samples of processes on display, e.g., cotton in the boll, ginned cotton, baled cotton, cotton twisted into thread and woven into cloth

Motion Pictures

Watching movies of the children's own school experiences
Watching movies of the school experiences of other children
Watching movies which portray the action in stories or songs
Watching pictures showing the wonders of nature; of bird and animal life in particular
Following, through a movie, an extensive process such as making a house, running a farm, taking a train, boat, or plane journey

Radio

Tuning in a "school-of-the-air program" and listening to stories, dramatizations, science reports, music and art experiences
(Television now offers opportunities for learning through seeing as well as through hearing.)

Recordings

Listening to stories both old and new
Listening to the recordings which sometimes accompany the still films or movies
Listening to dramatizations
Listening to music from the appreciation angle
Listening to recordings which may have come over the radio when the children were not in school

Still Pictures

- Looking at illustrated text or story books
- Looking at posted pictures; e.g., photographs, paintings, drawings, etc
- Looking at pictures through the stereoscope
- Looking at projected opaque pictures
- Looking at film slides or film strips

SPECIFIC KINDERGARTEN EXPERIENCES INVOLVING

SYMBOLIZING

Visual Symbols

- Making and following with the teacher a large chart of the garden planting
- Referring to room charts which give the location of individual lockers, beds, table arrangements, etc.
- Picking out specific buildings or streets on pictorial maps
- Following on the map or globe a journey being made by one of the group
- Outlining on paper or the blackboard the imaginary boundaries of the play yard
- "Reading" pictures, cartoons, and comic strips; e.g., enumerating, describing, and interpreting
- Identifying locker tags, page numbers, familiar words or phrases in a picture-story book

Verbal Symbols

- Reporting an experience to the group—a great step beyond showing and telling
- Grasping meanings of new words through context or supplementary material
- Grasping meanings of new words through the teacher's seemingly casual use of synonyms
- Playing games in which words must bear meanings before right action can be produced; e.g., "True-False": "Clap once if the statement you hear is false." "Raise your hand if it is true."
- Playing games in which words and not actions must be followed; e.g., "Do as I say but not as I do."
- Following directions in which of all the words spoken a single word or phrase is the key; e.g., "This is to be a turn for anyone who belongs to this kindergarten, who is sitting on the floor, who worked with clay today, who lives at 3416 Smith Avenue."

As we follow the kindergarten experiences all the way from the base of the cone on up to the tip, it is obvious that words are constantly acquiring content and in so doing they crystallize experiences.

As words become meaningful we are relieved from the burden of objects and things. When we can manipulate ideas with words, we have achieved a certain degree of freedom. One of the greatest difficulties with words, however, is that they come to symbolize or stand for specific experiences with specific people. The more broad and the more common our experiences can be, the more readily we will be able to use words as media for accurately conveying ideas. As an illustration of the fact that a specific word or phrase may convey one meaning to one person and quite a different meaning to another, let me cite an experience which I once had while driving in a London street. I was doing what seemed to me very well considering the "keep-to-the-left traffic" and all the "circles" and "circuses" I had to contend with. But as I prepared to make a particular turn, a man stepped up, tipped his hat, and said, "That's a dumb turn you're making, madam." It made me furious to have him comment so scathingly upon my driving! And it wasn't until I had proceeded half way up the block and found a sign saying "Dumb Turn" that I appreciated his courtesy. Apparently "Dumb Turn" in England is synonymous with "Dead End Street" in America.

All along the way it should be a purpose of the teacher to help children add not only new words but new meanings to their words. If words meant pretty much the same thing to all people, a tremendous amount of misunderstanding would be obviated. One of our chief responsibilities in working with children should be that of providing a variety of experiences for all children so that words can come to convey ideas which are almost as clear-cut as direct firsthand experiences themselves. Audio-visual education provides many opportunities for a variety of experiences, and with many of the newer tools of the field we should familiarize ourselves. In the days and years to come, if the new tools are used wisely and well, audio-visual education can do much to bring to many people common understandings.

SOME OF THE NEWER TOOLS OF AUDIO-VISUAL EDUCATION

The Stereoscope

The stereoscope, though it was sometimes found in our grandmothers' or great-grandmothers' parlors, is today an instrument which can be classed among the newer visual-education tools. The modern stereoscope is made in several sizes, but the one best adapted to the use of kindergarten children is a plastic instrument

only slightly larger than a pair of binoculars. It is procurable in most instances at either department stores or camera shops and costs approximately \$1.50 to \$2.00. A disc, or reel, containing seven pairs of stereoptic Kodachrome pictures may be easily slipped into the instruments and then, simply by clicking a tiny lever and holding the instrument up to the eyes, the pictures appear in full color and in three dimensions. There are at present something over one hundred and fifty film discs available, and the subject matter ranges from the Story of the Three Bears to Colonial Williamsburg and Marine Studios. The reels themselves are not expensive. They may be purchased for as little as \$.35. The instrument is light in weight and can be easily handled by kindergarten children.

The Opaque Projector

The opaque projector is a machine which permits a picture from a book, a post card, or any flat picture not larger than 6" x 6" to be flashed on the screen in its original color. The opaque projector is excellent to use either in connection with science or storytelling experiences. Sometimes illustrations from old books can be salvaged for use. The machine, which is bulky and not easily transported, is sometimes called a Delineascope, a Baloptican, or a Reflectoscope. In most cases, the children would go to the room where the machine is set up to view the pictures.

*Film-Strip Projectors**

The film-strip projector is used for projecting 35 mm. films. The pictures shown on the screen are, as the name suggests, still and not moving. In many ways this is an advantage, for it affords opportunities for detailed observation and discussion. The film rolls cost approximately \$1.50 to \$3.00 apiece and each roll contains from fifteen to fifty pictures. The films come either in black and white or in colors. Sometimes the film-strip machine can be adapted for showing the small 2" x 2" slides which are available also either in black and white or in colors. It is becoming more and more common for children to have photographic slides at home which they would like to share with the school if a machine were available for their projection at the school. The machine itself is light in weight, is easily transported and simply operated. The range of subject matter depicted in still films and small film slides is already great, and many new strips and slides are being placed on the market.

*The Slide Projector***

The slide projector, a modern form of the old magic lantern, is a machine which is frequently found in use in classrooms. Both photographic and handmade slides can be used with the machine. The slides are transparent and are usually 3½" x 4" in size, though

* See reference, p. 90.

** See reference, p. 90.

the 2" x 2" slides mentioned above are coming to be very popular. Handmade slides can be made by placing glass or cellophane over the picture to be copied, tracing the outline, and coloring the picture with transparent colors. For materials to be used in making slides, see the Keystone catalogue listed under sources of audio-visual materials at the end of this chapter. Professionally made slides may be purchased for from \$.55 to \$1.35 per slide.

Motion-Picture Projectors

The motion-picture projector is seldom the property of a kindergarten. The machine is usually owned either by the school or by the school system. Motion pictures provide wonderful educational opportunities for older children, but so far as kindergarten children are concerned, they are often confusing and confounding. The action, in most cases, moves so quickly before the eyes and so much takes place in a short period of time, that the five-year-old often gets a very distorted idea of what is really happening in the film. If the five-year-olds as a group are to see moving pictures, it would be well to limit the experience to very brief showings which can be run through more than a single time. It is not in the interests of five-year-olds to go to a general school auditorium for the viewing of a forty-five- to ninety-minute film. There are, of course, some movie films which supply in a simple and direct way desirable information and interesting entertainment for five-year-olds, but most of the materials could better be presented to the kindergarten children through still films. Films cost around \$50 to \$60 and can be rented for approximately \$3.50 per day.

Still Films with Recordings

There are some still films, slide films, and film strips which are accompanied by their own recordings. The recordings can be played on the phonograph while the pictures are flashed on the screen. The combined experience seems very satisfying to five-year-olds. The recordings, however, are expensive (approximately \$6.00 per volume), and in many cases a running story read or told by the teacher could be quite as satisfying an experience. Sometimes the musical accompaniment recorded on the record adds much which would not be supplied by spoken words.

Recordings

Almost daily new material is coming to us on records. Many of the newer records for young children are being made of an unbreakable substance. There are some excellent recordings of songs, stories, and dramatizations, as well as some fine new orchestral performances for young children. For specific references see the listing of records at the end of Chapters XIII and XIV.

Radio Programs

There is still not too much which comes over the radio which is

adapted to the group listening of five-year-olds. Some of the "school of the air" stories and dramatizations, as well as some of the newer musical recordings and the art and science presentations, are excellent; but even many of these might better be reserved for older children. With the further development of television, perhaps the radio will have more to offer which will be better adapted to the group experience of five-year-olds.

The Mechanics of Handling Audio-Visual Materials. In our American schools we look to our public libraries as distributors of much supplementary educational material. From some of the libraries in our larger cities we can obtain not only books but exhibit materials, films, and records. As the field of audio-visual education has broadened, the schools themselves have come to recognize the need of having within their own organizations a system for handling the many new materials now considered essential to modern education. Every school and every schoolroom should have some equipment and material of its own. But to have on hand in any one school or in any one room all the materials which might conceivably be used in any one year would be a waste of both money and space. Many school systems now have a department or committee which functions as the co-ordinator of audio-visual materials. Through this department or committee, materials are distributed and kept in repair. The individual teacher can make her request for loan materials directly to the committee. They, functioning much as our public libraries now function, will be able either to provide the materials or to tell her when the materials will be available for her use. In most cases, early in the year, the teacher can make a tentative list of materials which she feels she may need during the semester or year. This list, however, ought not to be final in any sense. In many instances, experiences will arise throughout the year which will make certain materials more profitable to use than others. The teacher should have the privilege either to cancel her orders or to add new ones as the year progresses.

SOME SOURCES OF AUDIO-VISUAL MATERIALS AND INFORMATION

1. The Association for Childhood Education, 1200 15th St. N.W., Washington, D.C., in co-operation with The Association for Supervision and Curriculum Development, the NEA, and The Association for Student Teaching, put out in 1947 a bulletin by

Margaret Hempel, Edgar Dale, and Marie Quick, called *Films, Film Strips and Records Interpreting Children and Youth*. Among other things this bulletin includes a listing of films on child study and child development. It also includes suggestions as to where films may be obtained. Price \$.35.

2. The Department of Visual Instruction of the National Education Association, 1912 Illinois St., Lawrence, Kansas, has put out a pamphlet by L. Hettaishaw, called *Simple Directions for Making Visual Aids*. Price \$.15.
3. The *Educational Index*, a volume found in most college and city libraries, has sections called "Audio-Visual Aids" and "Teaching Aids and Services." In these sections are listed bibliographies of magazine articles dealing with audio-visual teaching aids.
4. The Federal Security Agency, U.S. Office of Education, Washington, D.C. has a 1941 revised pamphlet called *Sources of Visual Aids for Instruction in the Schools*, No 8. In the pamphlet may be found sources of films, film strips, lantern slides, charts, pictures, posters, maps, globes, exhibits, and specimens. Price \$.15.
5. The Keystone View Company, Meadville, Pennsylvania, has a publication called *Keystone View Co. Catalog* in which directions are given for making $3\frac{1}{2}'' \times 4''$ slides. No charge.
6. The Recording Division of the New York University Film Library, New York, publishes a *Catalog of Selected Educational Recordings*. They will also supply annotated lists of recordings organized under subject matter headings.
7. The Society for Visual Education, Inc., Chicago, Illinois, will send free of charge its catalogue called *S.V.E. Educational Motion Pictures*. Under topical headings, it gives brief descriptions not only of motion-picture films but descriptions also of educational film strips and $2'' \times 2''$ slides.
8. State departments of education, the state colleges, and state universities are often sources of information concerning audio-visual materials. In many instances films, film strips and other materials may be rented directly from them. State universities frequently have available pamphlets on their "school of the air" programs and they usually appreciate comments and suggestions which teachers and children may have to make about the broadcasts.
9. The Still Film Co., Inc., Hollywood 46, California, makes available to the public its *Still Film Complete Library Catalog*.
10. The University of Iowa Extension Department, Iowa City, Iowa, put out, in the school year 1946-47, a *Catalog of Visual Aids for Classroom Use*. This catalog should prove useful to those who are eager to acquaint themselves with both the tools and the experiences through which new learning can be brought to the classroom.

SUMMARY

The method of audio-visual education is not new to early childhood education. Those who have best understood children through the centuries have contended that the most profitable learning comes through a wide variety of experiences. In its broadest sense, audio-visual education is concerned with many experiences, the main categories of which may be listed under three headings: (1) doing, (2) observing, (3) symbolizing. Audio-visual experience should not be confined to a single category. Since experiences sooner or later tend to be crystallized in words, educators should make an effort to see that words come to be symbols for a wide variety of experiences. As words become meaningful, they relieve society from the burden of objects and things. Every teacher should acquaint herself with the new tools of audio-visual education. It would be a waste of both space and funds to attempt to have each building supplied with all the tools of the field. Schools and school systems need to have some sort of organization whereby the tools and materials of audio-visual education can be most profitably used by the greatest number of teachers and children.

QUESTIONS AND PROBLEMS

1. Design for yourself a "cone of experience" based on the categories set up by Edgar Dale. From your observation, or from your teaching experience, select those experiences which in any one twelve-weeks period might be classified in the ascending levels of the cone.
2. Why are many motion-picture experiences not adapted to a group experience for five-year-olds? What are the advantages of still films over motion pictures? of some motion pictures over still films?
3. Cite a firsthand concrete experience which you feel would not be a good learning experience for kindergarten children. Why would it not be a good learning experience?
4. Recall from your own childhood an instance in which a particular word or group of words became crystallized into a narrow and perhaps erroneous understanding.
5. Why would it be better for a group of five-year-olds to listen to a recording on a phonograph rather than to listen to the same recording on the radio?

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The Child Who Needs Special Attention

IN AN earlier chapter, the reader has been reminded that at no period in the school curriculum are the children in any one class as dissimilar as they are during their year in kindergarten. These differences are due in part to the fact that the children in the kindergarten have widely varying past experiences at home and no common school experiences. They are due also in part to the fact that in most school systems, all five-year-olds are expected to attend the regular kindergarten although in later years some of them will be sent to special classes of one kind or another. The result is that almost any kindergarten group will include one or more children who need a great deal of individual attention.

Sometimes the difficulty is purely physical; sometimes it is purely a problem of mental attitude; usually both physical and mental causes are at work. While some problems are easily recognized, others will be noted only by the alert teacher. If the group contains a child who has one leg in iron braces, every teacher will recognize the difficulty, but if the odd child in the group is a bully or is very timid, many a young teacher will fail to live up to her opportunity for helping the child. In the present chapter an attempt is made to suggest some of the common difficulties which appear in kindergartens together with some suggestions for helping the child.

The Crippled Child. Many public-school systems expect the child who is crippled but still able to walk to attend the regular schools. Often such children are somewhat delayed in starting school, but many enter kindergarten at the usual time. The great majority of

crippled children are victims of infantile paralysis. Sometimes there is something which can be done to help the child physically. Such efforts are made, of course, through the child's family. If the parents are intelligent and supplied with sufficient means, they have probably done all that can be done for the unfortunate child. But if the parents are poor or ignorant it is quite possible that the kindergarten teacher and the school nurse can inform them of clinics or welfare agencies where the child's handicap can be studied and perhaps lessened.

Whether or not there is medical aid for the child, the kindergarten teacher can make special provision for the crippled child in the school. If the child has difficulty in climbing steps, it may be possible to arrange a few wide planks as a ramp or to allow him to enter and leave the school building by the entrance which has fewest steps. In some schools the kindergarten children use a basement gymnasium for their games. If there is a crippled child in the group who has difficulty with stairs, it may be possible to have the games in the kindergarten room instead of going down stairs or else to employ the crippled child somehow upstairs while the others go down to the basement.

On the side of physical exercise, the teacher may be able to plan games into which the crippled child can enter without disturbing the play of the other children. Perhaps he can play with balls and marbles and quoits. He may be able to march but not skip. He may be able to play with a wagon though not with a velocipede. Most crippled children need more rest than normal children. If the child walks a long way from home to school, he may need a rest period when he reaches the school.

Many crippled children need special attention from the point of view of mental hygiene. The child suffers from a defect which will always make him an object of curious interest to the thoughtless. Other children are particularly prone to open-mouthed interest in abnormal bodies. Such observation is naturally highly unpleasant to the unfortunate victim. At the kindergarten level there is little we can do to persuade the other children to ignore defects, but if we keep them all as busy as possible at some play or occupation, then the crippled child will be less often the object of scrutiny. If we discuss the cripple's difficulty with the group we may make the matter more important than it is already. Perhaps the kindest thing to do is to keep the children's attention elsewhere as much as possible, and if the sub-

ject comes up for discussion, as it does frequently when some child asks, "What makes John's leg like that?" then we answer frankly that John had an accident or was ill and that he isn't able to handle his leg as well as some other children, but that in other ways he can do just as much or more than others. Fortunately the curious interest phase passes quickly for children. After the first few days they accept John for his real worth and ignore his disability except, perhaps, to be very proud of him when he learns to do something which the rest have been able to do for a long time.

Often crippled children are sheltered at home to an extent which actually interferes with their normal development. The mother is so distressed over the child's difficulties that she endeavors to do more for him than for a normal child. The result is that he becomes more and more dependent upon her instead of assuming his own share of work. The crippled child craves an equal share in the work and the responsibility of the world. There are many things which he can do happily for himself if he is given opportunity and time. In the kindergarten room, the teacher can learn easily just what limitations the crippled child has, and can then encourage him to engage in every activity which is within his ability. Since we want to make the cripple just as close to normal as he can be, we make special provisions and exceptions for him only when it is absolutely necessary to do so. The child should have a reasonably accurate understanding of his own abilities, and he needs a mental outlook which will insure as happy a life as is possible.

The Child Who Looks Queer. There are certain children whose personal appearance is so odd as to attract attention. If there is nothing actually wrong physically or mentally, then the special task of the teacher is to help the child ignore his handicap and to see it as something not enormously important. The cross-eyed child fascinates other children. If the condition can be remedied by glasses or medical care, then, of course, it should receive attention from specialists. If it cannot, then the teacher can keep the interest of the other children occupied until they take for granted the crossed eyes. In one kindergarten, a small boy had a most peculiar and most ugly-shaped head. The other children stared at him for a day or two in wonder. The teacher tried to keep her eyes directed elsewhere. The children ap-

parently soon completely forgot the irregularities of Tommy's skull in their recognition of his ability in drawing. Before the end of the term, Tommy was a happy leader in the group, and only the occasional visitor had to be told of the automobile accident which had disfigured clever Tommy for life. Flaming red hair, enormous and numerous freckles, very thick glasses, and even something unusual in the line of clothing—such as a mother's old hat forced upon a little girl—may cause considerable agony to a child unless the teacher is quick to help the children accept the difficulty as one of little moment.

The Child Who Is of an Uncommon Race. In certain sections of the country, Negro children, Oriental children, and Latin-Americans suffer more or less from social ostracism. The average five-year-old who has known nothing of race antagonism at home tends to accept the child with different skin pigment or different racial features without undue questioning. Shortly the child comes to be accepted for his worth and not his appearance. A child trying to recall the name of a Japanese boy who had recently joined the group said, "Oh, you know! The one with the black. He smiles a lot and he makes good boats." The teacher has an opportunity to enrich the experience of her group through the contacts with other races. A kindergarten is indeed fortunate when it has enrolled a child from another country, especially if the child and his mother are ready to tell the children something of the language, the customs, and the games of the other children. Such a child can be made to feel not an outsider, as is so often the case, but a welcome visitor, and a little later as simply one of the kindergarten group. If a child comes from a foreign-language home, then there is, of course, much which the kindergarten teacher can do in teaching him the most common English words. With a little care on the part of the teacher, the foreign-speaking child will quickly build up a working vocabulary. There is much kindergarten activity which the alert child can enter without knowledge of English. He can watch the other children and follow their actions and he can understand the simple gestures which the teacher uses. Any good kindergarten would be set up in such a fashion that the challenge of the environment and the routine of the day would carry him comfortably along. As in the case of the infant he will, of course, come to understand the spoken word long before he speaks with any fluency.

The Child Who Has Defective Vision. The child who is totally blind does not enter the regular schools, but many children have seriously defective vision all unbeknown to their parents. If the child's vision has always been poor and he has nothing better with which to compare it, he simply assumes that he is seeing what everyone else sees and fails to complain of his vision. We find some children who think that "bird" means a noise which a tree makes, all because they fail to see the actual bird which an adult points out as the source of the song. We find children's pictures of airplanes which are merely a smooth wash of blue sky, omitting entirely the object which they think they are portraying. Small children, ignorant and uncertain of their own judgment, accept the adult's remarks without criticism. If when the adult points to the sky and says "See the airplane," the child fails to see the small figure moving across the blue, he is quite justified in assuming that the blue sky is the airplane.

Sometimes it is difficult to recognize poor eyesight in a small child. Miss Anette M. Phelan of the National Society for the Prevention of Blindness has listed a number of kinds of behavior which may be indicative of poor vision in a child. These may be summarized as:

1. Rubs his eyes frequently or keeps attempting to brush something away from them.
2. When inspecting near-by objects, blinks continuously, or screws up his face, shuts or covers one eye, or tilts his head to one side.
3. When looking for distant objects, holds his body tense, thrusts his body forward, screws up his face, or appears disinterested while the other children are much interested.
4. Fails to catch a ball thrown to him.
5. Cries frequently, has frequent fits of temper, is irritable.

The teacher must bear in mind that any child who is alert in some ways and seems stupid when confronted with any situation involving vision, may not be stupid or contrary, but merely partly blind. It is possible to ascertain acuity of vision in kindergarten by use of the "E"* chart. If there is time, this test should be given to all kindergarten children as soon after they have become accustomed to school ways as possible.

When the teacher questions a child's ability to see as others see, she reports her suspicions to the school nurse, or directly to the par-

* See brief bibliography of tests in Appendix.

ents, so that they may take the child for an accurate examination. In the schoolroom itself, the teacher can make sure that the child with poor vision sits in the most favorable place, with the light falling over his left shoulder, and that he does little fine work, is given working surfaces without glare, frequent rest periods. Besides this, she can talk to him somewhat more than to the other children. The child with poor vision should learn much through hearing.

Often the recognition and treatment of a visual defect will make an enormous difference in the behavior of the child. In a public-school kindergarten Charles, a rather undersized boy in the beginning group, seemed friendly and talked intelligently for his age. As the days passed, however, he showed but little interest in most of the kindergarten activities, was unwilling to undertake anything new, offered no criticisms or comments on the work of other children, and unless forced into some other activity, spent his days playing at the sand table. After some weeks had passed, the children were all given a routine vision test by the school nurse. Charles on this test was discovered to have exceedingly defective vision. The parents were informed, and they took Charles to the oculist at once. Beginning with the first day of wearing his new glasses to school, Charles's whole attitude changed. He left the sand table and attacked blocks, paper, scissors, and crayons with great interest and joy. It was quite evident that Charles had previously been unable to see what the teacher had shown the group, and, not realizing what his difficulty was, had felt hopelessly at sea. Now when any new suggestion is made to the group, Charles is one of the first to respond with, "I can't do it very well, but I'll try!"

The Deaf Child. Technically the child who has never heard is the only one who should be called deaf. The child who has lost his hearing after speech has been acquired is called deafened and the child whose acuity of hearing has been impaired in any way is called hard-of-hearing. The deaf and the deafened children are not often found in the regular school groups. The child who is hard of hearing is all too frequently unidentified as such in the school group. He may have suffered from his handicap for years without recognition. He may never have heard well and so may have no basis for comparison himself. Even if his hearing difficulty is of recent origin (due perhaps to



Henry, Who Is Hard-of-
Hearing, Makes No Effort to
Listen When Sitting in the
Rear of the Group.

*University of Minnesota
Kindergarten*



Henry Makes an Effort to
Listen When He Is in the
Front of the Group.

*University of Minnesota
Kindergarten*



Henry Watches Another
Child for Cues When His
Own Hearing Fails Him.

*University of Minnesota
Kindergarten*

a cold or some more severe illness) its approach has probably been so gradual that the child has been unaware of his increasing disability. The hard-of-hearing child is apt to be "spotty" in his behavior. He may be the child who seems to be rather stupid, but when given mental tests, rates fairly high. The teacher may be inclined to be provoked at his inattention, his irrelevant interruptions, his seeming denseness, when the truth of the matter is that the child simply does not hear what is being said. In the games in the kindergarten, it should be possible for the alert teacher to recognize those children who have difficulty in hearing. A simple test with a watch or with whispered words will show which of the children have the poorest hearing. If the defect is found, then of course the child should be referred to the nurse for examination and recommendations made to the parents.

When the teacher finds a hard-of-hearing child in her group, she can help matters considerably by giving the child a seat near the front of the group during a discussion. It is quite possible that such a shift in position will make the difference between hearing and not hearing to the child. In the illustration on the opposite page we find such a child. One picture shows Henry in the back row in the group. He cannot hear what is going on and while the other children in the row are listening attentively, Henry plays with his shoelace oblivious to the teacher's story because he cannot hear it. In the second picture, Henry is in the front row, and is giving rapt attention to the story. In the third picture, Henry sits next to Byron, whose hearing is normal. The teacher is playing a game in which the children are to "do what the teacher says but not what she does." Henry knows that his visual cues from watching the teacher will be wrong, and so he watches Byron and quickly responds as Byron does.

In addition to having a favorable position in the group, the hard-of-hearing child needs other special attention. He needs to learn to read lips. The teacher can tell the child to watch the face of the person who is speaking to him. Many young children pick up considerable lip reading simply from this procedure. They may not realize that the movements of the speaker's lips are helping them, but they find that they "hear" better when they watch the speaker's face.

The child who is hard of hearing is very apt to become solitary in his play because he is cut off from so much conversation. To prevent

such an unfortunate eventuality, the child should be helped early in life to improve his capacity for understanding others (i.e., through lip reading and paying close attention) and also to interest himself in things which do not require hearing. The kindergarten can help greatly, not only in assisting the child in understanding others, but also in giving him acquaintance with types of handcraft and of physical play, and with opportunities offered by books.

The Child in Poor Physical Condition. In any kindergarten group there will be some children who are less robust than the others. If a child is listless and easily tired, the teacher should become at once suspicious of some physical difficulty, and should refer him to the nurse or school doctor or should ask the parents to have their family physician examine the child and make recommendations. If such examinations are not available, there will be little trouble at least in obtaining measures of the child's height and weight and consulting the height-weight-age charts (see p. 2) to discover whether or not the child is extremely underweight. Whether or not a definite physical difficulty can be found, the child who tires easily needs special rest periods, either in school or at home. He needs also the right kind and amount of food (perhaps an extra lunch in the middle of the morning if this be possible), he needs fresh air, warm but light clothing, suitable room temperature, and above all, ample rest. The fatigued child often feels cold in a room which is at a temperature suitable for his more robust mates. In such a case, an extra sweater will probably counteract the difficulty.

Sometimes children with lowered vitality have difficulty in keeping up with their group and so feign or exaggerate their physical shortcomings for the sake of being allowed to remain at home. Such a procedure, of course, constitutes a vicious circle, for the more frequent the child's absences, the farther behind his group will he fall and the greater will be his difficulties when he does return to school. The kindergarten program should be flexible enough and individual enough to preclude such a response on the part of the child. Obviously such frail children should not be expected to go through school at a normal rate.

The Child with a Speech Defect. It has been estimated that some five per cent of school children have defective speech. Such a figure would

doubtless be much too small for the kindergarten group because in that group we have not only the stuttering and the letter substitutions, huskiness, shrillness, lisping, oral inactivity, and the imperfect breathing of the older children but also the last remnants of baby-talk in children who may later on speak correctly. The basic elements of speech have to do with articulation, voice, and rhythm. Speech defects may be "functional" or "organic." Functional disorders may be caused by such conditions as poor co-ordination, late maturation, poor speech standards at home, foreign speech influence, etc. The organic disorders are those which have a physical basis. Children with functional disorders may be expected to respond to remedial instruction while those with disorders of an organic nature will need the help from various medical specialists.

Speech difficulties in kindergarten children usually fall into three classes: stuttering, inaccuracies in sound production, and improper voice placement. Stuttering often persists only a few weeks or months, but whether it is temporary or probably lasting, the teacher can help the child in his endeavor to overcome the difficulty. The stuttering child needs good nutrition, sound sleep, and a stable nervous system. He needs practice in talking to people who are sympathetic but who treat the stuttering as if it were practically of no importance and certainly not worthy of ridicule or pity. Above all, the stutterer needs confidence in his own ability to overcome his difficulty. If the stuttering persists and the blockings become accompanied by secondary manifestations, then the advice of persons from the medical professions should be sought.

Many kindergarten children mispronounce or omit certain letters or substitute some letters for others, saying, for example, "muvver" for "mother" and "ith" for "with." The letters which are most commonly miscalled by young children are: ch, d, f, g, k (or c), l, n, r, s, sh, sz, t, v, and zh. If the teacher is unable to recognize exactly which sounds cause the child trouble, she can try him out with an articulation test.* Sometimes the child is not aware of his own mispronunciation. He may be speaking as well as his family speaks. He may be persisting in some baby-talk sounds which his family has never helped him to overcome. It is important that the family help the child to develop so far as possible acceptable forms of speech before he becomes socially sensitive. Once the child's difficulties have been dis-

* See Arnold reference in brief bibliography of tests in Appendix.

covered either through observation or through the use of diagnostic articulation tests, the kindergarten teacher can help the child in many informal situations. In her own conversation with the child she can see that she pronounces slowly, carefully, and distinctly the sounds with which the child has particular difficulty. She can initiate games or introduce rhymes in which the special sounds are emphasized, and she can stress the sounds through exaggerated tongue and lip movements. If the faulty speech seems to be bringing about personality difficulties the teacher might recommend that the child do special work with the speech teacher. Frequent short practice on some words, rhymes, and jingles containing the difficult sounds may result in definite improvement. However, according to many speech specialists it is better to postpone formal speech work until the child is in the first grade.

The child with improper voice placement, e.g., the child who speaks in too-loud or too-soft tones, in a too-high or too-low register, or the child who speaks with a whine, is not always thought of as having speech difficulties. Yet he is establishing faulty patterns of vocalization, and he should be encouraged and helped to appreciate pleasing, clear, resonant tones. The causes underlying the child's persistent use of tones characterized by huskiness, whining, harshness, strain, or pronounced nasality should be looked into.

The Child Who Is Somewhat Immature. Most public schools admit children to kindergarten on the basis of chronological age, without reference to mental development. This means that a certain number of somewhat immature children may be expected to be present in any kindergarten group. Such children tend to be playful and inattentive, to wander away from group discussions or stories. They often fail to follow out directions, or they give up after a slight attempt and can be held only with difficulty to finishing a task which they have undertaken. Often they seem dependent on the teacher or more advanced children, and follow them around the room, happy only when they are near by. Sometimes the immaturity appears in lack of muscular strength or co-ordination so that the child is unable to use the tools or to perform on the gymnastic apparatus as well as the other children of the group. Frequently an immature child is a hindrance to the group through his inability and unwillingness to co-operate and to persevere in his work.

The teacher's task is to adapt the program so that the immature child will have something to do which he can do with satisfaction and without disturbing the rest of the group. The other children will come quickly to realize his lack of ability and will not lower their own standards just because one child in the group is unable to meet the same goal. Another problem which arises is the contact with the parents of immature children. Usually the parents are surprised to find that one of their children is less mature than the rest. Most parents will understand that some children develop more rapidly than others and they can be shown that pushing the slower children through school at the rate expected of the more mature children will result in nothing but failure and unhappiness for the slow child. Sometimes the child who seems immature in kindergarten takes a spurt in the later years and catches up or even surpasses some of the apparently precocious children. Sometimes, on the other hand, the immature child continues his slow development and never reaches the average

The Child Who Is Mentally Retarded. Statistics show that about two children in every hundred in the general run of the population are sufficiently retarded mentally to require special methods in education. The school systems of the larger cities provide special schools or classes for these retarded children, but children of kindergarten age are not ordinarily placed in a special class. It is not unusual, therefore, for the kindergarten group to contain at least one child with an IQ in the 70's or even 60's. Such children should probably be kept at home or in a nursery school for another year, but in systems which admit children on the basis of chronological rather than on mental age, such a postponement of kindergarten entrance is impossible.

What can we do for the retarded child? First, if possible, secure some measure of his retardation and make sure that there is no remediable physical cause which is giving a false impression of mental retardation. A deaf child or a child from a foreign-speaking home may easily give an impression of backwardness. If the child gives every evidence of being retarded, then the teacher can modify her program to allow for his incapacity. Perhaps he can be given a special type of work. Surely he can be treated with extreme patience, and held to standards considerably lower than those considered worthy of the rest of the group. Since personal and social traits vary among the mentally re-

tarded just as greatly as among normal children, it is exceedingly important to help the less bright child to acquire a pleasing personality. He may never compare favorably with others mentally, and so he needs more than the others to excel in pleasant manners, attractive appearance, and desirable habits.

For the lowest of the retarded children who find their way to school, the establishment of good basic habits is essential. These individuals acquire habits with less ease than do normal children, but once they have formed the habits, they have no difficulty in keeping them up. Because retarded children cannot always understand the reasons for certain types of behavior, we appeal to their reason less than we do to that of normal five-year-olds.

Find out what the child can do, where his abilities and interests lie. Find out something about his family and his home life, and try to give him things to do in kindergarten which are interesting to him and are within the range of his abilities.

The retarded child has often suffered under constant nagging and criticism (especially if he has normal older brothers and sisters). He should see that the kindergarten is a friendly place where people like him, where they appreciate his efforts, and where they encourage him and praise what he is able to do instead of always comparing it unfavorably with the products of more fortunate children. The retarded child needs to see things in the concrete. Theorizing and abstract generalizations will never be his forte; he needs object lessons, pictures, games, manual activities. At physical exercises he may be as skilled as the other children, but, on the other hand, he may need special training in good posture and in physical co-ordination.

Book work will probably never be a happy occupation for him, but there are many other things which he may be able to do with his hands. Music, art, natural science in its simple forms, and even dramatics may be fields in which the child may have a special ability apparently unrelated to his ability to solve difficult intellectual problems.

Some of the worthiest of citizens are less able than the average man. Even at the kindergarten level, we can help the retarded child gain the foundations of good citizenship. He may not aspire to be President, but he may want to be a good street cleaner, and a good street cleaner is essential for the welfare of the city.

Parents often fail to recognize the fact that a child is retarded men-

tally. It is a difficult task for even the most tactful teacher to tell the parents that their child is less able than the average, and yet if the information is not given, the child runs a chance of acute suffering through comparisons with average children and through being held to standards that are 'way beyond his ability. Since we know so little about the course of mental development of typical children, we cannot say to the family flatly that Jack will never be able to finish high school, or that he can never be trained for the profession which the family has planned for him. We would be very unwise to disclose to the mother the IQ which Jack obtained on his last test. We know that IQ's change slightly from one week to another, and sometimes astoundingly from one year to another. We do not want to brand a child as a defective at a time when there is any possibility at all that he is merely somewhat slow in developing. And so we tell the parents that the child is somewhat less mature than most of the other children in the group. We perhaps suggest another year of growing up in the kindergarten, and in some cases, if the test score has not been too low, we point out that in another year he may find it as easy to learn to read as will most of the others in his first-grade group. We very definitely stress the fact that if he enters the first grade this next year he will almost certainly be doomed to become one of the slowest in the group. We try to point out how discouraging it is for any individual, no matter how much effort he puts forth, always to find himself at the bottom of the heap. If the parents are seriously concerned, we can point out the many differences between persons and can suggest that there are many different kinds of ability. We can let the parents know that in co-operation with them we are interested in making a study of the child's particular abilities and disabilities and that on the basis of our findings we are eager to help the child. If the parents are concerned with what is the best thing which can be done for their child, they will think of him as an individual who is no way responsible for his retardation and as an individual who deserves all the help which he can get in his endeavors to become a worthy citizen and a happy person. If the child appears definitely not to belong in the regular school classes, the teacher, after consultation with the school principal and others, can recommend that the parents get advice in regard to placement from a child guidance clinic or, in many states, from the state testing department.

The Superior Child. The kindergarten teacher meets the definitely superior child less often and for shorter lengths of time than she meets the retarded child. In some cities, for example, a child who has already learned to read enters first grade without attending kindergarten at all; and in many places a child who is outstanding in the kindergarten is promoted to first grade after only half a year of kindergarten. To the person who lays great stress on completing school at as early an age as possible, such rapid advancement seems highly advantageous. Others, however, feel that there are distinct disadvantages in allowing a child to progress too rapidly through school. The child who passes all tests brilliantly at an early age may be precocious rather than permanently superior. Even if his superiority is of a lasting type, he may be immature socially and in experience and so fail to benefit greatly from the more advanced school work. Particularly in kindergarten we may find a child who is keen and alert mentally but who is lacking in poise, in motor co-ordination, or in the ability to get along happily with his fellows. If such a child is pushed ahead, he may become a prodigy who is almost completely out of touch with his own generation. Although in later years his fellows may catch up with him mentally, the prodigy may always lack the joy of true companionship. For such a child the kindergarten may do much. While recognizing the child's unusual ability, the teacher will not stress further development along these lines, but will encourage him in the lines in which his development is less mature. If he has learned to read, that is no reason why he cannot still be happy in the kindergarten situation. He will not be reading in school, but he will be busily engaged in all sorts of other activities. He will be planning, and testing his theories. He will be acquiring skill in handling tools and crayons and scissors. He will be learning the fun of expressing his ideas in clay and sand and paper and cloth. He will be discovering what methods of treatment of other children meet with the most satisfactory results. He will be experimenting with his environment, both persons and things.

The Child Who Is Left-Handed. Most of the things in this world are planned for right-handed people. The person who cannot cut without special left-handed scissors, who cannot play golf without special left-handed clubs and who cannot eat comfortably at a dinner table unless he is seated at the corner is under a handicap. Left-handedness appears

in all degrees. By the time the child is five years old, hand dominance is usually well established. Studies have shown that approximately six per cent of all school children show a definite preference for the left hand and that between four and five per cent show no strong hand preference. There are some activities which may as well be done with the left hand as with the right. It makes no difference, for example, whether a nail is pounded in with one hand or the other. In other situations it may be a great nuisance to have to secure a special pair of scissors before cutting, or to ask for a particular seat in order to avoid bumping elbows with the next person. If the kindergarten teacher has some children in her group who are vacillating in hand usage, she would do well to try to determine which, if either, seems to be the dominant hand. It would be helpful to observe and record the child's seeming hand preference in such activities as pulling down a shade, winding a mechanical toy, pounding a nail, throwing a ball, screwing a jar lid, carrying a bottle of paint, using a paint brush, etc. For more accurate determination of handedness see Iowa Scale for Measuring Hand Preference¹ or other scientifically developed scales. If the child appears to use either hand equally well, the teacher would probably not be at fault in pointing out to him that it would be easier for him if he would use his right hand for such things as eating, cutting, drawing. If he exhibits a distinct preference in favor of his left hand, then this usage should be accepted, and the teacher should be ready with suggestions which will help him to adapt himself most efficiently and effectively to our strongly right-handed civilization. If the left- or right-handed preference is marked, and annoying attempts are made to shift hand usage, or if, because of accident, the necessity arises for shifting hand usage, certain nervous symptoms such as tics, nail biting, and stuttering may appear. The child whose hand dominance is interfered with is likely to be a confused and upset child.

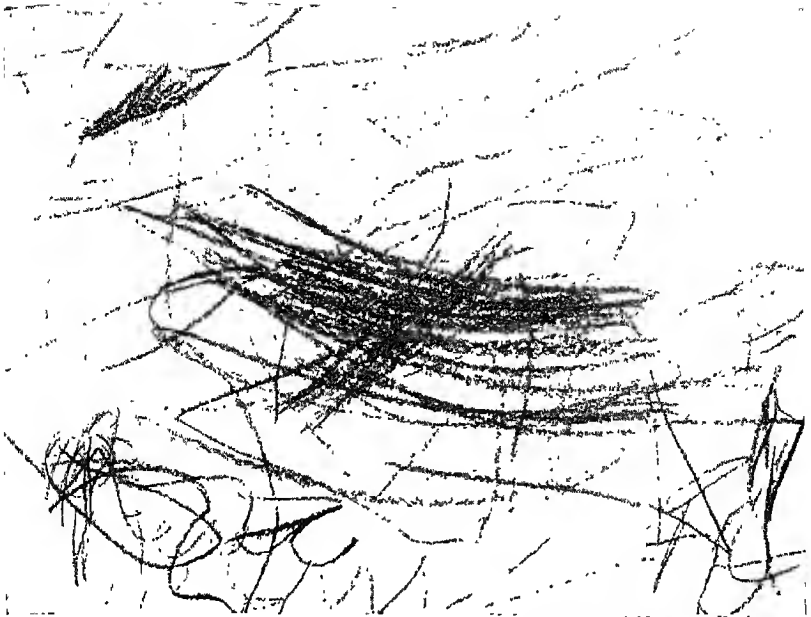
General Behavior Difficulties. Behavior difficulties usually cannot be traced to one underlying physical cause, but they are often symptoms of a deep-lying difficulty. If the teacher will remember always that there is a cause behind the behavior and if she will seek out and treat that cause, she will produce many more improvements in behavior than if she confines her attention to the overt behavior itself.

¹ Goodenough, Florence L., *Developmental Psychology*, D. Appleton-Century Co., N.Y., 1945, p. 308.

The Child Who Cannot Sit Still. The child who squirms continually is a nuisance in the room, a constant irritant to teacher and to other children. The most natural response on the part of the teacher is to keep reminding the child that he must sit still. But perhaps he cannot sit still! The child who is suffering from chorea is often an offender in this regard. He may tell the teacher that he can't help wriggling; she will probably reply in caustic tones that anyone can sit still. The unfortunate child, however, cannot keep still despite all his efforts and he has to conclude, if he thinks about it, that he is less able than the other children. It is possible that the squirming child has some itching skin trouble. Even the calmest of adults cannot sit still when suffering from eczema, and yet we boldly assure children of five that "anybody can sit still." If we are sure there is no physical cause behind the restlessness, then we have the task of gradually teaching the child to relax and to control his muscles for short periods of time. Any group will become restless after prolonged quiet. A run on the playground or a skip about the room will be more efficacious than nagging in relieving such fidgeting.

The Child Who Is Highly Distractible. The child who is too easily distracted may upset a group. The pictures on the facing page illustrate this point. Illustration "A" is a "drawing" which Byron made when he was sitting at the table with Manly. Manly is an erratic boy, who, although average in mental ability, has little interest in completing anything which he begins, and who apparently gets most of his enjoyment out of acting silly upon all occasions. The boys sat together and the pictures, which had been planned as decorations for the walls of the new playhouse, turned into mere scribbles. The kindergarten teacher looked at Byron's work, told him that she was sorry he had forgotten what he was planning to make, and thought that he might be able to do better work if he were to have a table by himself where he could keep his attention on what he was trying to do and would not be disturbed by the other children. Byron complied with her suggestion, moved his paper and crayons to a secluded corner of the room, and ten minutes later returned with the drawing pictured in Illustration "B."

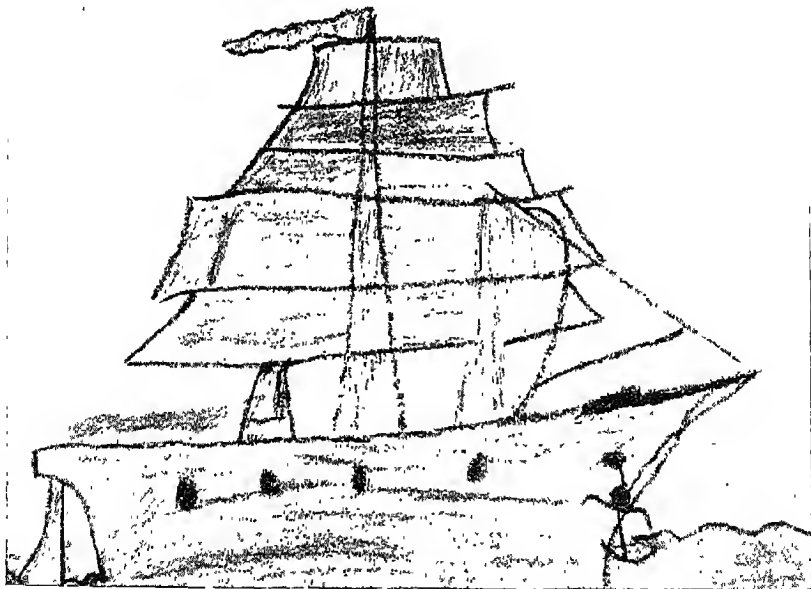
We need to help the distractible child not only for the sake of other members of the group but for his own sake as well. The "scatter-



University of Minnesota Kindergarten

a. Byron's Picture When He Was Distracted by a Child Who Was Acting Silly

b. Byron's Second Picture, Made Five Minutes After the Distraction Was Removed



brain" type of individual is no addition to society, and no great satisfaction to himself. Kindergarten probably presents the first occasion on which this child is expected to control himself. Up to this time, he has been allowed to flit from one occupation to another as fancy suggested. From now on, he will be expected to stick to one task for longer and longer periods as necessity demands. The kindergarten is an enormously important steppingstone for these children.

The kindergarten teacher helps the child by making it a point to see that he does not undertake tasks which are too difficult for him, and by seeing that the simple undertakings once begun are carried through. If the child becomes highly excitable and cannot stay by his task, she offers him the opportunity of stretching out and resting quietly on his rug until he can "get hold of himself." Frequent use of praise in the way of contrasting and comparing the child's present with his earlier effort does much to help the child to feel that he can and does make progress.

The Child Who Is Irresponsible. Many children coming into kindergarten have never learned to take any responsibility for themselves. Frequently this is the direct fault of the family and not due to any inclination of the child. In one kindergarten a new child was overheard to say, "Gee! I like to put on my own coat. You know, I can't do it at home because my mother likes to put it on for me." Such a child blossoms into a fervor of self-responsibility when he is offered the opportunity. Other children have become so overdependent upon the mother that they weep when separated from her, or cling to the skirts of the teacher expecting baby-talk and much attention at all times. They feel deserted and helpless in a group of strange children, and they attach themselves now to one person and now to another in the hope of locating some person under whose wing they may be sheltered. Sometimes these children hesitate to express or even to formulate an opinion of their own until they ascertain just what certain respected adults think about the matter. Such children need to be constantly encouraged to become more self-reliant. Step by step these children need to be confronted with situations which will necessitate decision and constructive action on their part. They need praise for every new step which they take and they need to feel the respect which the group feels for individuals well able to look out for themselves.

The Child Who Makes Excuses. Many children of kindergarten age have learned through experience certain methods for meeting correction and criticism. Some children stall when confronted with an embarrassing question. They say, "What did you say?" or "Who? Me?" or pretend not to hear in an effort to gain time enough to invent a satisfactory answer. Excuses and alibis are all too common by the age of five. They are, of course, merely attempts to give an acceptable reason for unacceptable behavior and thereby to conceal the real purpose behind the criticized act. The more clever children sometimes attempt to change the subject and so direct the teacher's attention from themselves. Jimmy, when told that he should not have interrupted Catherine's work, looked up brightly and said, "My, that was an interesting story you read us this morning, Miss Smith!" Other children attempt to shift the blame on some companion. Others say penitently (or at least with apparent remorse), "I forgot." Still others have learned to escape criticism through excessive manifestations of temper in the hope that the experience will be so unpleasant for the adults that they will avoid offering corrections at another time.

Usually children try now one method and now another of avoiding the unpleasant results of their own behavior. The method which, from the child's point of view, is most efficacious is the one upon which he patterns his later behavior.

It is important that the children be helped to face the situation, to acknowledge their shortcomings, and to attempt to improve their behavior in the future. A kindly word from the teacher will do more at this time than scolding or punishing if the child is naturally shy. If the difficulty persists, then at each appearance it must be met firmly and justly. Every time the child "gets by" with evading the responsibility for his acts, he becomes that much less desirable a character. Sometimes it may be necessary for the teacher to check the veracity of the child's remarks before she reproves him. Always, of course, she must be sure of what happened, and must make the child see the importance or non-importance of the occurrence.

The Bully. The kindergarten group may contain a bully, or a child who domineers over the others. There is almost always an unfortunate home situation behind this type of behavior. The teacher needs to know the habits and the ideals of the family of the bully. Sometimes she will find older brothers and sisters who have tormented the five-

year-old for months without end. The smaller child is wholly unable to compete with them on the physical level, and is as yet so unlearned in the ways of the world that he does not conceive of any other method of combat. His one aim may be to torment a smaller child as he himself has been tormented. Sometimes we find that the family members preach to the children the belief that only through the exertion of physical strength can we hope to "get anywhere in the world." These children are unsuccessful in their fights with larger and older children, so they naturally select smaller and weaker foes. Sometimes the bully is a direct copy of an admired bad boy of the neighborhood or some headliner in crime. In attempting to help such children become acceptable members of the group, the teacher needs first of all to discover, if she can, the real reason for the undesirable behavior, and then to treat the cause.

The Timid Child. Contrasted with the domineering child, we find the timid, fearful child, usually small in stature but not necessarily lacking in mental ability. This fearful child may fear everything, may be the shrinking sort of individual whose one ambition is to escape notice. Again, the past history of the child in the home is of the highest importance. Is the child the victim of brutal punishment, perhaps at the hands of a ruthless father? Is the child a wide-eyed auditor at family tales of horror or of crime? Is he taken to see terrifying movies? Is he constantly warned with vague though frightful threats, or has he had some one unhappy experience which has left him timid and fearful? One kindergarten child showed so much anxiety during the first week of school that the teacher made a special visit to the mother. The explanation for the behavior lay in the fact that a few months before the child had, without warning, been taken to the hospital for an operation which kept him there in considerable discomfort for several weeks, and he was afraid that some such procedure might develop at school. With this knowledge, the teacher took particular care to reassure the child as to what was going to happen at school. Under this treatment, the child became assured that school was a happy place and his fears disappeared.

The Child Who Is Overemotional. Occasionally a kindergarten child exhibits a specialized fear, such as one of dogs, or of fire. Such a fear can sometimes be ameliorated by encouraging the child to form pleas-

ant associations with a mild form of the feared object, perhaps with pictures of dogs or toy dogs or baby puppies, or for fire with a single tiny candle on a birthday cake.

Displays of anger, even temper tantrums, do appear, but they are uncommon at the kindergarten age. The kindergarten setup is not one which encourages such displays, but the teacher need not be surprised if they appear. The group offers the teacher an excellent opportunity to show the child that such behavior as an extreme display of temper is not acceptable in a social situation and that an individual acting in this manner is not a desirable member of the group. Temporary isolation will ordinarily quiet outbursts of temper, and after perhaps many repetitions will teach the child to control his outbursts.

The Child Who Uses Undesirable Language. A child who causes consternation among some of the mothers is the child who uses bad language, whether vulgar or profane. Such language will vary enormously from one school to another. In some districts it is merely the type of language common among all the adults of the community. In this case, it is perhaps hopeless to try to do much in changing the child's expressions. Certain words and phrases may be understood as "not allowed" in the schoolroom, but the teacher must realize that she is probably giving the child not a change in his language habits but a second sort of language which is to be used on special occasions. Even so, it is a step in the right direction.

Then there is the child who stands out in the group as being particularly vulgar in his language. Such a child is a menace to the group and needs more attention than if he were merely one of a group all using the same kind of speech. A small boy who was known the neighborhood over for his indescribable and unrepeatable street vocabulary was once enrolled as a member of a somewhat select kindergarten group. Mothers shook their heads and threatened to withdraw their children if the child continued to attend. The teacher, being forewarned, was forearmed! On the second or third day of kindergarten she heard the small boy say in a loud voice to his table companion, "That's a damn dumb thing you're making." With another child the teacher would probably either have completely overlooked his speech, or she would have brought favorable attention to the good qualities of the work being done by the child whose work was being criticized.

In this case, however, being forewarned, she quietly and calmly but

with no uncertainty picked up the work of the loud speaker and asking him to bring his chair she ushered boy, work, chair, and all to a table in a remote section of the room. As she helped him to settle in his new working quarters, she explained to him that they did not care to have him with the group when he talked like that. There was apparently no ill feeling on the part of the child, but from that day until the kindergarten year was ended, the only remark of the kind that was ever heard from the child was one under strain of great duress. The child upon this occasion had, with no little difficulty and with considerable persistence, secured for himself the Chinese tom-tom only to hear it assigned to another child. He gave the tom-tom to the child, but as he did so he muttered, quite under his breath, "Well, take your damn tum-tum then."

SUMMARY

In any kindergarten group, there are likely to be a number of children who need special attention from the teacher. For each of these cases, the teacher will need to discover the underlying cause. If the cause is a physical one, she may need to urge the parents to take steps toward remedial work. If the cause is a mental one, then the teacher will need to change the attitude of the child, and, perhaps, the attitude of other children toward him. Whether or not the condition is remediable, the teacher should strive to give the child a mental outlook and forms of response which will further his own happiness and his social adjustments in the group.

QUESTIONS AND PROBLEMS

1. What are the arguments for and the arguments against having handicapped children taught in a school by themselves?
2. Parents of handicapped children may: (1) fail to realize that there is any difficulty; (2) expect special attention for the child; (3) become upset at any discussion of the child's difficulties; (4) try to smooth out all difficulties which the child encounters. What attitude should the teacher take in response to each of these?
3. If the kindergarten teacher is called upon to furnish part of a "program" for the school, should she favor the children who are most attractive, or should she try to include all the unattractive and handicapped children, or should she adopt some other procedure?

4. If there are several races or nationalities in a kindergarten, what methods would tend to make these more "race conscious"? What would tend to make them all "Americans"? What would make them more interested in the native lands of other children?
5. Would it be possible to take a totally blind child into an ordinary kindergarten? a totally deaf child?
6. What difficulties may arise if a child of age 8, with a mental age of 5, is enrolled in a kindergarten? What difficulties if a child of age $3\frac{1}{2}$ with a mental age of 5 is enrolled?

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Kindergarten Records and Reports

IN ANY group of experienced teachers, there is no topic which will more readily provoke a lively discussion than that of record-keeping. Some teachers can see nothing of value in records, and accept them as a necessary chore connected with the red tape of the school. Other teachers are most enthusiastic over the value of many kinds of records. The truth probably is that the first type of teacher thinks of records as an end in themselves. She derives no benefit either from the records which she has made or from the records which have been made by others. She fails to appreciate that records are kept for a variety of purposes. We will grant at the outset that record keeping can be a time-consuming business, and that in many cases the teacher has the right to feel that she is being asked to keep too many records. But a few reasonably simple records, intelligently kept and intelligently used, can be one of the teacher's most valuable assets.

Why Keep Records? Those who question the usefulness of records would do well to read Chapter X in the *Forty-sixth Yearbook of the National Society for the Study of Education* (see reference, page 426). In that chapter, Ethel Kavin sets forth eleven uses to which records may be put: (1) to help teachers understand the child; (2) to help parents understand the child; (3) to secure evidence of growth and development; (4) to discover and meet special needs; (5) to discover personality and behavior difficulties; (6) to determine school placement; (7) to provide a basis for confidential reports to outside specialists and clinics; (8) to provide data for reports to other schools; (9) to serve as guides to curriculum planning; (10) to provide in-service education for teachers; and (11) to provide data for research. In this chapter we shall discuss the kinds of records which the appreciative kindergarten teacher would like to have in her files.

Cumulative Records. It is desirable that for each child enrolled in the school there should be a cumulative record folder. One of the best ways to bridge the gap between nursery school and kindergarten, between kindergarten and first grade, is to have on file good materials in each child's cumulative record folder. In fact, the whole educational program from nursery school to college might well be spanned by cumulative record material. The kindergarten, since there are more kindergartens than nursery schools in the public-school system, stands in a strategic position in regard to cumulative records. To the kindergarten teacher falls the lot of (1) summarizing the significant events which have occurred in the child's preschool life; (2) assembling scientific data in regard to the child's present development, (3) contributing observations of the child as a developing personality; and (4) making probably the first recorded estimate of the child's behavior in a society of his own peers. This may sound as though the kindergarten teacher's chief business is that of looking at the child through a microscope. Let's rather think of the teacher as she studies and works with children, as one who is looking through both time and space with a binocular sweep. Her many observations and findings are indeed significant, but they are only so in relation to a grand total—that grand total being the whole child.

Content of the Cumulative Record Folders. The first material to go into the folder would be the initial enrollment card on which would be recorded such information as the child's name, birth date, address, father's and mother's occupations, and date on which the child was enrolled in the school. On this card there would also be space on which a record of any later school transfer could be made. To this original card would be added further information on the child's preschool life, the record of his routine physical and dental examinations, records of any mental tests given, the teacher's scoring of the child on available standardized rating items, anecdotal records, brief accounts of parent contacts with the school, the teacher's record of the child's progress, and an account of the teacher's report to the parent. In some cases there might also be in the folder the records of any readiness-for-learning tests which might have been administered.

Records from the Home for Use in the School. The kindergarten child spends some two-and-a-half to three hours a day at school

(seven hours in an all-day kindergarten). He is in kindergarten on what amounts to about one half of all the days of the year. The rest, the great majority of his time, is spent in an environment about which the kindergarten teacher knows all too little. If the child is to be given help in developing his possibilities to the utmost, then the school and the home must work together. Such co-operation can result only when each comes to know more about the other environment and how the child reacts in it. A child with generations of cultured, well-educated ancestors behind him, a child from a family of unlettered but simple, worthy, self-respecting citizens, and a child only a few weeks out of an orphans' home, adopted by a childless and wealthy couple, may appear much the same outwardly. Yet their background of experience and their present environments may be so different that the new kindergarten experiences will have quite different significance for each of the three.

Procuring the Information. In many communities, the school conducts a spring or summer roundup for those children who will be entering the kindergarten in the fall. At that time the teacher has a chance to see the child with at least one of his parents. Frequently a conference with the parent can be had at that time or scheduled for a later date. In at least one city school system, the first two or three days of the session are devoted to conferences. The group of children as a unit does not come together until the teacher has had occasion to meet each child and to talk with at least one person who knows intimately the child and his home environment.¹ If the interviews are scheduled at 15-minute intervals it is possible for the teacher to talk with from eighteen to twenty parents a day between the hours of nine and three-thirty. A strenuous schedule? Yes! But one which seems to pay good dividends as the year progresses. In some instances, after an opening conversation, the parents can continue on their own in jotting down the bits of information sought by the school.

KINDS OF INFORMATION NEEDED FROM THE HOME

Members of the Family. The school needs to know something of each child's parents. Were the parents born in this country? If they were born in a non-English-speaking land, we need to know how long they

¹ The child of course does not sit in on the interview. He is encouraged to explore the room and generally familiarize himself with his new environment.

have lived in the United States, whether they speak English or the native tongue at home, and how closely they cling to the customs of their former country.

Of the parents, we need to know also whether both are living and whether or not they are living together. Many children who come from broken homes have been known to suffer a definite social or emotional handicap. If we could know just how much of happiness there is in the home, how much of discord and sorrow, it would help us to understand the child. Obviously we cannot ask for such information directly from the parent, but obviously, also, if the information is volunteered we should not neglect to record that the father is a problem on one account or another, that the mother hates housework and doesn't cook when she can avoid it, that the grandmother sides with her child in all arguments, and so on. Such remarks may be given outright by the parent in conferences with the teacher, but appear more often in the casual remarks of the kindergarten child. Many a kindergarten teacher, despite great efforts to keep personal affairs out of the kindergarten discussion, cannot help overhearing such statements as "Gee, but my Daddy was so drunk last night! And we had company, too. Mother was so mad at him," and "You ought to have seen the fight my mother and Mrs. Smith had. They looked just like chickens with their heads stuck way out."

It is important to know whether a kindergarten child has older or younger brothers and sisters or whether he is an only child. If older children attend the same school, the teacher will know more of the family situation through her acquaintance with these older children. She may have to remind herself that simply being members of the same family will not necessarily mean similarity in disposition, or in mental ability, though it will probably mean the appearance of certain family traits. She will recognize, too, occasional bits of seeming erudition as mere parrot-like repetition of the words of older members of the family. One kindergarten child startled adults by her completely unusual art work. She made picture after picture of characters whose nationalities could be identified by their costumes and general racial characteristics. The productions were to be wondered at under any condition but when one learned that this child had a high-school brother who was absorbedly interested in designing posters for his international-relations club, the marvel of the productions did not

seem quite so breathtaking. The only child may have some difficulty adjusting to the group. The youngest member of a big family may try to treat other children as he has been treated at home. We cannot predict from mere knowledge of home situation what the child's behavior at school will be like; but given the behavior, then knowledge of the home may help us to understand underlying causes and help us to change the child's behavior into acceptable forms.

The presence of other persons outside the immediate family in the home frequently presents problems. The child who has two grandparents with opposing views living in the home may well suffer. Janice's maternal grandmother and paternal grandfather were both members of her home. Grandmother was very religious and, whenever she could catch Janice, insisted upon her learning long hymns and psalms. Grandfather was openly derisive of such doctrines and lay in wait for an opportunity to demand that Janice recite the last thing Grandma had taught her so that he might roar with laughter at the performance. No wonder that Janice learned to avoid all elderly people!

Gwendolyn was naturally a rather clever child, quick to pick up new slang and pert phrases that provoked laughter. Her mother was the housekeeper for a fraternity house and the college boys who lived there soon found they could have great fun quizzing Gwendolyn and teaching her all sorts of undesirable words and expressions. For some weeks the kindergarten teacher despaired of ever helping the child not to show off and not to use many of the pert expressions which came so easily to her tongue. An understanding of the home situation and a talk with Gwendolyn's mother resulted in keeping the child in their own apartment while she was at home and preventing further exposure to the thoughtless teaching of the older boys.

The Status of the Family. Besides knowing the composition of the family, the teacher can more effectively help the child if she knows also the social, cultural, and economic conditions in the home. If the family is living in a neighborhood of similar families, the child is probably an acceptable member of the neighborhood group of children. But if the family is undesirable from the point of view of the neighbors, the child may suffer the humiliations of ostracism; if the family is a superior one settled for some reason in a distinctly inferior community, then the parents may try to prevent intimacy between the child and

other children to a point which makes for serious emotional upsets in the child.

What is the education of the parents, and what are their leisure-time interests? Is the home one where the child is exposed to cultured conversation on matters of interest politically, historically, and socially? Or is the only talk which he hears concerned with the freshest crime, the juiciest scandal, the petty squabbles of the neighborhood, or senseless backbiting among the older members of the family? Does he hear clever, stimulating wit, or is the entertaining part of the conversations limited to gross ridicule of the misfortunes of others or to repeating smutty jokes? Whether or not the child enters into the conversations of the home, he will absorb much of their vocabulary, and more important still, their attitude. Perhaps in no way is the cultural status of the family so fully revealed as in their leisure-time occupations. The parents who are limited in their amusements to the cheaper movies and radio programs, card-playing, and newspaper-reading are not likely to inspire worthier recreations in their children. "Like father, like son" often repeats itself in leisure time. The child who sees his parents read, and who hears good books read aloud, who hears fine music and the discussion of music, who joins in family trips to museums, to zoos, to the woods and country, who learns which radio programs and which movies the parents enjoy, who watches in rapt admiration while his father or mother carves a bit of wood or soap, or models a bit of clay, or draws a design, or fashions a dress, or hunts up information in the dictionary or encyclopedia, is ready for a far different type of school work than the child who has learned to accept the cheapest types of ready-made entertainment.

The whole color of the home may be altered by the financial status of the family. While the school is, of course, not concerned with the actual income of the family, nor with their budget and spending, still it is of great importance to know whether the family is on the relief rolls of the city, whether they are barely scraping along on meager and uncertain funds, or whether they are comfortably secure or very wealthy. The children from the poorest groups may come to school ill-nourished and thinly clad; they may need help from the school in learning how to secure the necessary medical care; or the needed glasses or dental work; they may need help in obtaining sufficient warm clothing. Apart from actual help, the teacher may well modify

her attitude toward individual children if she knows they are probably breakfastless and hungry. If the family owns its own home, they are probably not in dire need at least, and may be expected to be fairly permanent members of the school.

The Past History of the Child. If admission to school is based upon chronological age, then the one most important piece of information from the point of view of the school is the child's date of birth. If the school rules require that dates of birth are checked, the record should contain also the birthplace so that the records can be consulted. Sometimes parents, in the belief that early school entrance is an advantage to the child, deliberately misstate the date of birth. In one kindergarten, no checking of birth dates was required, and the school accepted Ruth's age as stated by the mother. Ruth was well above the average for her age in physical development and for that reason gave no indication of being misplaced in the group. As the year progressed, however, it became more and more evident that Ruth seemed less mature than the rest of the group in many ways. A mental test, administered at the teacher's request, gave Ruth an IQ of 89. When the time came for the group to be transferred to the morning session the teacher suggested to the mother that, because Ruth seemed less mature than the other five-and-a-half-year-olds in the group, she felt it would be better for her to remain in the afternoon group. She hastened to point out that Ruth might well have opportunities to be an occasional leader in that group, whereas with the older group she seemed inevitably to be a follower. The mother exhibited considerable embarrassment when she heard this and at last falteringly admitted that she had given Ruth's age as six months older than she actually was because "Ruth was so large for her age and she seemed just as smart as other children who were entering kindergarten" and to her it had seemed that the school entrance rule was all foolishness anyway. The mother had not realized that her falsification of the birth date would result in an injustice to her child. When she understood the situation, she was perfectly happy to have Ruth remain in the group of younger children. Ruth made an excellent adjustment to her new group and with her recalculated IQ of 99, and with a mental age which corresponded with her chronological age, Ruth seemed not a slow but a very normal sort of child.

When asking a parent about the date and place of birth, it is a simple matter to ask also whether or not there was anything unusual about the child's birth or infancy. A history of extreme delicacy in babyhood may explain later physical or emotional difficulties. Surely the school needs to have a record of the contagious diseases which the child has had. In a time of epidemic it is extremely important to know just which children in a certain room are immune and which are susceptible to the disease. Sometimes it is possible to record the age at which the child first walked and first talked: The occurrence of very precocious and much delayed development may predict advanced or retarded development in other lines.

Present Condition of the Child. If the child is given a routine physical examination at the school, his weight and height will be recorded at that time, but if he has no such examination, the parents can be asked to supply the information. The teacher needs to know something of the child's home routine. What is his usual bedtime? his usual rising time? How good is his appetite? What does he usually have to eat during the day? If the child is sleepy and tired in the kindergarten, if he is listless and inactive, this may be the direct result of insufficient rest or inadequate food at home.

The teacher needs to know something of the child's speech. Perhaps she can make records of stuttering and letter-substitutions in the schoolroom, but she needs to know also whether or not the parents recognize any inadequacies in the child's speech. Sometimes a knowledge of the child's emotional responses at home will help the teacher cope with the school situations. Particularly she needs to know whether or not he has shown any intense fears. A child, for example, who has for months shown terror at the approach of a dog would not be encouraged to meet a dog in the schoolyard as one who has always loved dogs. Temper tantrums may be frequent at home and perhaps never appear at school, and it will give the teacher a clearer understanding of the child if she knows the differences between his behavior at home and at school.

A comprehension of the child's particular interests will give the teacher a key for interesting him in new occupations. A girl who scorns dolls and adores steam engines can be reached by an approach quite different from the one used with the dainty, domestic type of young

lady. Favorite toys, favourite stories, and the like all give the teacher a needed insight into the child's character.

Sometimes it is possible to obtain, even at an early date, an account of the child's attitude toward school. David gave the impression during the early weeks at kindergarten that he simply "couldn't be bothered" to do any of the things the other children were doing. When the teacher interviewed the mother she learned that David's attendance at the school was only temporary and that the family were to move out of the state in a month or two. The mother had deliberately warned David not to get too much interested in the school in the belief that thus she was protecting him from too great disappointment over leaving school later on.

In the original interview with parents the teacher must be sure to convey the idea that the information is being assembled in order that the home and the school can work together for the good of the child. One somewhat inexperienced teacher who failed in doing this and who obviously left the father with the impression that she was simply prying into the private affairs of the family was greeted, at the conclusion of the interview, with a barrage of facetious questions from the father. "What movie did you see last night?" "What dress did you wear?" "Was it a good date?" "How many dates have you had in the last week?" etc.

Most schools will find it advisable to set up their own home interview blank. One which might conceivably meet the needs of many schools in its major design would be the following, which has been adapted from the Initial Information Blank used in the Preschool Laboratories of the State University of Iowa.

HOME INFORMATION INTERVIEW

Child	_____	_____	_____	_____
	Last Name	First Name	Middle Name	Name Used
Sex	_____	Date of Birth	_____	Place of Birth
	_____	_____	_____	Race
Address	_____			Phone number
Previous school experience	_____			
Father	_____		Place of Birth	Date
	Place of birth of paternal grandparents (if outside U S) _____			
Education	Grammar School	_____	High School	_____
	_____	_____	College	_____
Occupation	_____		Address	_____
	_____		Business Phone	_____
Mother	_____		Place of Birth	Date
	_____		_____	_____

Present Condition of the Child

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Place of birth of maternal grandparents (if outside U S) _____

Mother's maiden name _____

Education: Grammar School _____ High School _____ College _____ Advanced Degree _____

Occupation before marriage _____

Occupation outside home (if any) _____

Hours employed outside home _____

Business address _____ Business Phone _____

Are the father and mother living together? _____

Siblings—list below

Name	Sex	Date of Birth	If deceased, date, cause
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Members of household other than parents and own children

Name	Sex	Approximate age	Position in household
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Dwelling: House _____ Duplex _____ Apartment _____ Rooms _____

Does the child have a room of his own? If not, shared with whom? _____

Special interests

Favorite play activities _____

Favorite radio programs _____

Favorite books and stories _____

Social activities

Is child's play limited to the yard? _____ to the block? _____

Into how many homes does the child go frequently? _____

How many playmates come to the child's home frequently? _____

Does the child attend movies? _____ Number of times a month _____

Does the child attend Sunday School? _____ Number of times a month _____

Is he enrolled in any special groups? (rhythms, play, art) _____

What travel experiences has the child had? _____

How does the child get along with other children? _____ with adults? _____

Health

Name of family doctor or child's doctor _____ Address _____

Estimate of present general physical condition _____

Anything unusual about birth? _____

Serious illnesses or accidents to date? _____

Contagious diseases: Measles _____ chickenpox _____ mumps _____ scarlet fever _____

whooping cough _____ others _____

Immunizations to date _____

Usual routine for sleep and rest

Night: In bed _____ Asleep _____ Up _____

*Rest In bed _____ Asleep _____ Up _____
 Foods _____
 Appetite. Poor _____ Fair _____ Good _____ Very good _____ Excellent _____
 Strong likes _____
 Strong dislikes _____

What (if any) points are most often issues between parents and child?

What types of control are most frequently used?

What is the child's attitude toward his new school experience?

Information given by _____

Information recorded by _____

Date _____

* If child does not take a rest, how long has it been since daytime rest was discontinued? _____

School Records Primarily for the Use of the School. We often find that the persons most closely in touch with changes which develop gradually do not realize those changes until some outside individual calls them to their attention. The development has been so gradual from day to day that the observers compare the child from one day to another and forget what the child was like two or three months ago and so cannot make the more important comparison. We may struggle for weeks to improve the condition or behavior of a particular child and feel utterly discouraged at the end of the time unless we have some record or picture of what the child was like at the beginning of our efforts. On the other hand, it is quite possible to forget earlier performance and feel that a child has made great improvement when records would show that the contrary is actually the case. While the general conclusions from such records may be of interest to the parents, there would seem to be little advantage in attempting to report all the details to the home. They would be records primarily for the use of the school.

Records of Physical Condition. Early in the year, the school needs to know about the child's physical condition. An examination given at the beginning and the end of the year by the school doctor, should be reported, of course, to the home, though it may be advisable to make the report general and in case of special difficulty to refer the parents to the family physician. The report might read: "The school physician reports that Henry is in good physical condition" or "The school physician recommends that Henry should be taken to your family physician for treatment of eczema," or "to investigate his persistent cough," or, "Vision tests show that Henry should be taken to an oculist for careful examination."

Records of the child's height and weight taken at intervals (of one or two or even three months) through the year will tell the school and the home much about the child's physical condition. A lack of gain over one period may mean nothing, but persistent failure to gain or actual loss in weight is sufficient reason for recommending a complete physical examination.

Special examinations of teeth, vision, and hearing are essential if the handicapped child is to be understood and helped. It is exceedingly difficult for the untrained parent to recognize weakness in vision and hearing, and the young child, of course, does not realize that he sees or hears less well than any other person.

A record of the absences from school with the reasons for the absences will give a good picture of the child's health, and will explain oftentimes why at the end of the year some child does not seem to have gained as much as the others.

Records of Intelligence Tests:¹ It is unfortunate that in most schools we cannot obtain a mental test on each child every year. While there is a tendency among some teachers to take the mental age and IQ obtained for a child too seriously, the fact remains that in the tests we have the only objective evidence of mental superiority and inferiority. If we could have tests given by trained people, and could know the test given, the date of the test, the child's score or mental age or IQ which was obtained, and the comments of the examiner as to the trustworthiness of that particular test, then we could adapt our teaching methods to the mental development of the child. It is possible also to obtain from such tests evidence of special abilities and disabilities. In the Minnesota Pre-School Test, for example, the child is given a score on "verbal" and another score on "non-verbal" tests and these scores frequently show up the child who is unusually able in his use of language and the child who is more clever with his hands than with his tongue.

Experience has convinced most centers which give mental tests that parents should not be told the child's actual IQ. It is only with considerable experience and understanding of the difficulties in obtaining a perfect test upon a child that we can understand the fact that although a child's IQ may be expected to stay in the same general

¹ See brief bibliography of tests in Appendix. For a comprehensive list of tests and ratings for young children see Hildreth, G. H. (compiler), *A Bibliography of Mental Tests and Rating Scales*, Psychological Corporation, New York, 1933-39-45.

place, it may vary a number of points from one examination to another. The parent who hears in September that her child has an IQ of 105 and then in May that his IQ is now 102 may feel that the child is actually deteriorating. The truth probably is that there is no change, although he may really be somewhat more able at the later date. The untrained person does not understand such variations and should be told that the child on both tests "tested normal for his age" or some such phrase. If the IQ comes above 110, the parent can be told that the child is "above average" and perhaps we can tell the parent of the child who tests above 120 or 125 that the child is "distinctly above average." Such reports will prevent many of the unhappy comparisons of children in the neighborhood, whereby one child is known as the brightest child simply because his IQ is one point above some other child.

Rating Scales. If such rating scales as those dealing with introversion-extroversion (Marston)* or those dealing with problem tendencies (Haggerty-Olson-Wickman)* are available, it proves both interesting and valuable to check the individuals of the group on these standardized scales. The ratings thus obtained give the teacher a picture of where her group stands in relation to other groups in regard to behavior tendencies. A simple technique for obtaining a reasonably objective measure of individual intelligence lies in the analysis of children's drawings. Each child, supplied with a single dark crayon and a piece of 9" x 12" Manila paper, may be asked to draw the very best picture of a man which he can draw. When these pictures are scored on the basis of the Goodenough Drawing Test,* it is found that the scores have a very high correlation with scores obtained on other intelligence tests. Even if the teacher is not prepared to do the scientific scoring, she will find that she can obtain a fairly accurate range of the mental ability in her group by merely arranging the drawings in piles in relation to the number of details included in each child's portrayal of the human figure.

Readiness Test. Any records which the teacher might have on the child's readiness for future learning would also, of course, be included in the cumulative record folder. Different types of readiness

* See brief bibliography of tests in Appendix.

might be objectively indicated by the child's performance on a modification of the Probst Information Test,* the Brueckner Readiness Test in Arithmetic,* and the Metropolitan Reading Readiness Test.* These are suggestive only. There are many others,* particularly in the area of reading readiness.

Anecdotal Material and Behavioral Jottings. Anecdotal material is nothing more than the jotting down of factual circumstances. A single anecdotal jotting would have little if any significance. But if, through a year, we get such a record as the following from a child's folder, we can feel that it tells us much about a child, her personality, and her problems

- 10- 4-47 Lois brought an army whistle to school. Gene claimed it as his. There seemed no available solution to the problem. Lois took the whistle home.
- 10-25-47 Lois went out the door doubled up in a jackknife fashion. Further casual observation revealed that she was concealing a rubber boat which belonged in the locker next to hers. Upon request she cheerfully returned the boat to the locker.
- 11-24-47 Lois was the last child to leave the kindergarten. She talked enthusiastically about the watch she had in her hand. "My Daddy gave it to me last Christmas. He gave my sister one, too. I just love my watch."
- 11-25-47 Arnold reported the loss of a watch from his locker. Lois hastened to say, "I didn't take it." The others chimed in, "She did, too," "I saw her with it in her pocket at rest time," "She always takes everything."
- 3- 4-48 Lois brought a very attractive puppet doll to the group meeting. She explained she had found it on the floor by her locker and wondered whose it was. Betty: "It's mine, but you can play with it if you want to." Lois: "Oh, thank you, Betty. I think I'll sit by you. We're friends, aren't we?"

The anecdotal record needs no interpreting; it stands as its own evidence in support of the case. It has sometimes been said that the problem tendencies of a child or a family can be measured by the weight of the cumulative record folder. In order to obviate this criticism to some extent it is well to make it a point to see that each child regularly

* See brief bibliography of tests in Appendix

comes into his share of, shall we say, critical limelight. For this purpose it might be a good plan to single out each week two or perhaps three children for special observation. To clarify the problem and to simplify the recording it would be convenient to have on hand mimeographed sheets. The sheets might be set up something in the following fashion:

Behavioral Jottings

Child's name _____ Age: Years ____ Mo. ____ Days ____
Enrolled in _____ Observed by _____

Record below observed and dated instances of behavior which would seem to indicate that this child has qualities or characteristics which would make his presence a distinct asset to the group:

Suggestions for further developing and utilizing these good qualities:

Record below observed and dated instances of behavior which would seem to indicate that this child has qualities or characteristics which might profitably be modified by his kindergarten experience.

Suggestions for modifying these qualities:

Records of Achievement in School. One of the things we want to know about every kindergarten child is whether or not he is showing growth and progress. It ought to be possible to keep samples of various sorts of achievement at different periods in the year so that we can demonstrate the change in ability. Drawings are, of course, the easiest to store. We need only to note the child's name and the date in the corner of the sheet and then drop it into a file for comparison with later drawings. Sometimes it is possible to keep samples of work done in wood and clay, but the wood constructions frequently fall apart after a time, and the clay crumbles away. If the school boasts a photographer (or if the teacher is sufficiently interested to use her own camera) pictures of these constructions are more satisfactory than attempts to store the actual article.

The child is achieving greater heights not only in his use of materials but markedly in the use of language. If the teacher or an assistant can write down the first three or four remarks which a child makes on a day in the fall, in the winter, and in the spring, she should be able to see a distinct advance in pronunciation, length of sentence,

and use of words. It is also possible to get a record of the child's use of language by taking down at intervals through the year the child's own dictation of the "story" that goes with his picture. The dictation may be recorded directly on the back of the child's drawing.

Records of Behavior in School. Although accurate tests are a great help to the teacher, the lack of them need not handicap her seriously in following the development of a child. There are many evidences of development which she may record at times during the year and then compare, to discover whether or not a child seems to be gaining.

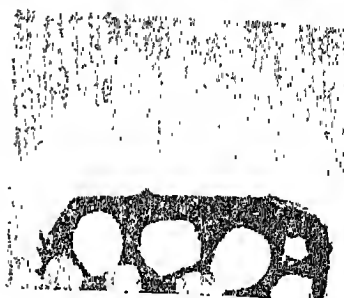
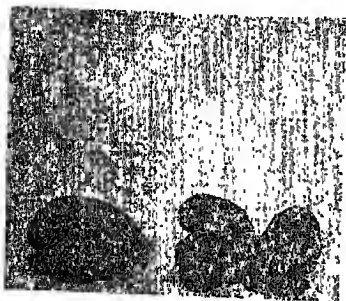
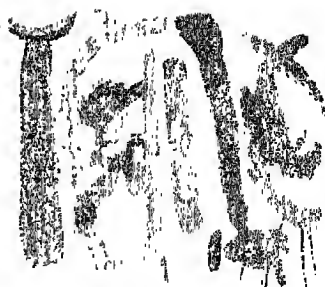
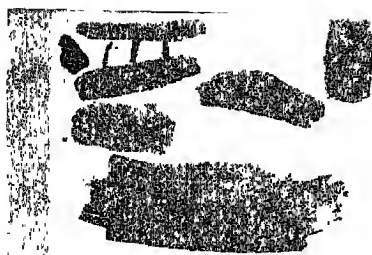
(a) In the line of intellectual behavior, she can score the child (perhaps on a scale from 1 to 3 or even from 1 to 5) as to the degree with which he initiates his own activities, makes helpful suggestions, carries out plans, judges the worth of his own work, expresses his thoughts, shows originality in stories, retells stories and rhymes, shows appreciation for the values of numbers, and shows interest in printed words.

(b) Under social behavior in school, the teacher can rate the child on the degree to which he shows leadership, appreciates the rights of other children, and respects those rights, shows a give-and-take spirit, gives helpful criticism, profits by the criticisms of others, responds to signals and directions, accepts responsibility for obeying authority, enters into the joys and sorrows of others, and exhibits courteous habits, such as saying "please" and "thank you."

(c) The child's emotional responses become better controlled as he grows more mature. The kindergarten teacher can record the degree to which the child displays anger, self-assertion, fear or timidity, affection, joy, or happiness, discouragement, and excitability, as well as the frequency with which his moods change.

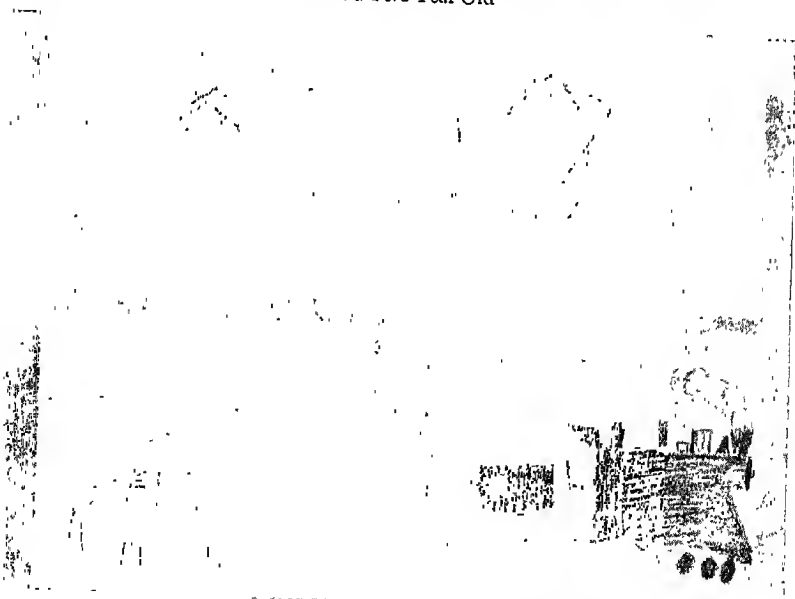
(d) Perhaps there is no one way in which a kindergarten child changes more obviously than in his motor control. We notice his ability in putting on and taking off his outside wraps, the ease and grace with which he moves about the room, the completeness with which he relaxes at rest time, the skill with which he handles hammer and saw, scissors, crayons, paints, and clay. In all such activities, he should show fairly steady progress throughout the year.

(e) It is possible for the teacher to record also the type of work or occupation in which the child is most interested at various times in



(Top) Paintings—Pictures Made by a Two-Year-Old, a Three-Year-Old, a Four-, and a Five-Year-Old

(Bottom) Drawings—Pictures Made by a Two-Year-Old, a Three-Year-Old, a Four-, and a Five-Year-Old



R. K. Headley—University of Minnesota
Levels of Maturity Are Clearly Indicated in Picture Making.

the year. We can score him as showing "marked," "average," or "slight" interest in such activities as large-muscle play, handwork, imaginative play, music, pictures, stories, and the like.

One form on which the kindergarten teacher can record the child's school behavior is the following, adapted from the blank used in the Kindergarten of the Institute of Child Welfare, University of Minnesota. The record does not purport to be scientific in any sense; it is merely a guide to aid the teacher in setting down her impressions of the child's behavior as she sees the child in a group of his own peers. It includes a tremendous number of items and would probably be too cumbersome to be used in a public-school system where the enrollment totals are sometimes staggering. The form is included here simply as a guide which any teacher might find useful in analyzing the school behavior of any given child. Each school system will probably develop its own blank for recording school behavior. The blanks will of necessity be much more brief than this, but each in essence will probably include the major items herein set forth:

KINDERGARTEN RECORD BLANK

Report on _____
 Enrolled in _____ Group _____ Date _____
 Days absent first semester _____ Second Semester _____
 Enrollment transferred to _____ Group _____ Date _____
 Teacher _____ Date _____ Teacher _____ Date _____

*I. Intellectual Behavior

Initiates own activities.

(1) wholly, (4) at times, (7) seldom _____

Contributes ideas which are.

(1) very useful, (4) useful, (7) useless _____

Carries out plans:

(1) almost exactly, (4) approximately, (7) with many changes _____

Judges worth of own work

(1) accurately, (4) approximately, (7) inaccurately _____

Expresses own thoughts

(1) very clearly, (4) clearly, (7) vaguely _____

Uses correct English

(1) consistently, (4) usually, (7) seldom _____

Shows originality in stories.

(1) great, (4) average, (7) little _____

Retells stories, rhymes, etc.

(1) very well, (4) moderately well, (7) poorly _____

Shows appreciation of the value of numbers

(1) keen, (4) average, (7) vague _____

Shows interest in printed words

(1) keen, (4) average, (7) little _____

Alert to his environment:

(1) markedly, (4) moderately, (7) little _____

II. Social Behavior

Displays leadership:

(1) marked, (4) average, (7) slight _____

Appreciates rights of others:

(1) clearly, (4) fairly clearly, (7) vaguely _____

* The numbers indicate directional tendencies only. They are not indications of specific gradations.

	Date	Date
Respects rights of others		
(1) uniformly; (4) when politic, (7) when necessary		
Shows a give-and-take spirit:		
(1) consistently; (4) within limits, (7) seldom		
Offers negative criticism		
(1) seldom; (4) occasionally; (7) frequently		
Offers positive criticism		
(1) frequently; (4) occasionally, (7) seldom		
Profits by the criticism of others		
(1) markedly; (4) somewhat, (7) little		
Exhibits courteous habits (please, thank you, etc.)		
(1) consistently, (4) to some degree, (7) seldom		
Responds to signals and directions:		
(1) alertly; (4) adequately, (7) sluggishly		
Takes responsibility for carrying on own routine activities.		
(1) completely, (4) at times; (7) seldom		
Enters into the joys and sorrows of others		
(1) markedly; (4) somewhat; (7) little		
Enters into play with others		
(1) wholeheartedly, (4) adequately; (7) little		
Is accepted by the other children.		
(1) enthusiastically; (4) as a matter of course; (7) with reservations		
III. Emotional Behavior		
Displays anger:		
(1) justifiably; (4a) somewhat excessively; (7a) excessively		
(4b) somewhat insufficiently; (7b) insufficiently		
Displays self-assertion:		
(1) justifiably; (4a) somewhat excessively, (7a) excessively		
(4b) somewhat insufficiently, (7b) insufficiently		
Displays fear or timidity:		
(1) justifiably, (4a) somewhat excessively; (7a) excessively		
(4b) somewhat insufficiently, (7b) insufficiently		
Displays affection:		
(1) justifiably; (4a) somewhat excessively, (7a) excessively		
(4b) somewhat insufficiently, (7b) insufficiently		
Displays joy or happiness:		
(1) justifiably, (4a) somewhat excessively, (7a) excessively		
(4b) somewhat insufficiently, (7b) insufficiently		
Displays discouragement:		
(1) justifiably, (4a) somewhat excessively, (7a) excessively		
(4b) somewhat insufficiently, (7b) insufficiently		
Displays excitability:		
(1) justifiably, (4a) somewhat excessively, (7a) excessively		
(4b) somewhat insufficiently, (7b) insufficiently		
Shifts moods:		
(1) justifiably; (4a) somewhat excessively; (7a) excessively		
(4b) somewhat insufficiently; (7b) insufficiently		
IV. Skills		
Adjusts own outside wraps.		
(1) easily, (4) fairly easily; (7) awkwardly		
Moves about the room:		
(1) gracefully, (4) with average ease; (7) awkwardly		
Responds to rhythms		
(1) feelingly, (4) adequately, (7) uncertainly		
Relaxes at rest time.		
(1) completely; (4) partially; (7) but little		
Matches musical tones:		
(1) skillfully, (4) fairly well, (7) poorly		
Carries a tune alone		
(1) skillfully, (4) fairly well, (7) poorly		
Handles hammer and saw:		
(1) skillfully, (4) fairly well, (7) poorly		
Handles scissors:		
(1) skillfully; (4) fairly well, (7) poorly		
Handles crayons		
(1) skillfully; (4) fairly well, (7) poorly		
Handles paints		
(1) skillfully; (4) fairly well, (7) poorly		
Handles modeling materials:		
(1) skillfully, (4) fairly well; (7) poorly		
V. Interests		
Physical activities: (1) marked; (4) average, (7) slight		
Manual arts: (1) marked; (4) average; (7) slight		
Imaginative play: (1) marked; (4) average, (7) slight		

Music (1) marked, (4) average, (7) slight _____

Books and stories (1) marked, (4) average, (7) slight _____

VI *Special Abilities or Assets*
Date _____VII *Features of Conditions Which Might Warrant Special Consideration*
Date _____

VIII. <i>Physical Growth Record</i>				
Height in Inches	Date	Weight in Pounds	Date	
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

IX *General Physical Condition at time of Last Physical Examination*
Date _____

Date _____

A Record Showing the Total Picture of the Human Resources of the Group. As the teacher comes to know her group she would do well to make an inventory of her human resources. Perhaps by the end of the first semester of the school year she would have made enough observations and would have assembled enough data so that she could plot her chart of human resources. This chart would not only be valuable to the teacher herself, but it would also have predictive values. It would give the school principal and those who were to be working with the group at a later date an estimate of the kind of performance which might be expected from the group as it progresses through the grades. The chart might also serve as a nice bit of evidence, in later years, as to why the group is able to perform above or below grade norms established on certain achievement tests. Items to be included on the chart would be the name of the child, chronological age, score on mental tests, physical and behavioral characteristics, earlier school experience, siblings, occupations of father and mother, standards which the family sets for the child, and, most important of all, what the child can do for the kindergarten (special interests and abilities), and what the kindergarten can do for the child (particular inadequacies and needs).

Records for the Use of the Child. It is sometimes, though not always, desirable to have records of accomplishment which the child himself can follow. All of us as adults occasionally enjoy beating our own previous record. The kindergarten child has no sustained interest in a long series of records, but for brief periods may be interested. For example, the child referred to in the anecdotal records on page 413 was delighted when the teacher volunteered to help her win back her

good name by keeping a record of both the disagreeable and the agreeable incidents in her daily behavior. The agreeable column soon outgrew the other in length, and Lois seemed to take great pride in studying the two columns.

It is often difficult to know when to terminate such a record; if it is continued too long it loses its significance. In this particular case, however, the problem was not a difficult one. The record-keeping terminated promptly when the mother reported that in a bedtime conversation Lois had said, "Mother, I do have fun being agreeable!" and then added somewhat meditatively, "But I don't want to get like Evelyn. You know she's too agreeable. Why, she's just too damned agreeable."

Special Records for Research. Although most teachers find their time fully taken up with the immediate demands of the kindergarten day, yet a few find time and are sufficiently well trained to carry out their own bits of scientific research. Others who have not the training themselves can co-operate with the research workers by keeping records and collecting data. In some school systems, usually those located near a university or teachers college, the teachers are called upon to make provisions in their program so that the research workers can come in to collect their own data. If such research studies do not interrupt the program of the day too greatly, the teacher should be ready and eager to assist in any way she can.

Some of the research studies may increase the teacher's knowledge of the individual child, while some may provide a basis for generalizations about five-year-olds as a group. Some may show up flaws and inconsistencies in methods and procedures, and some may merely corroborate the teacher's hunches. Often the teacher raises an eyebrow when she feels that the research people are only proving that which she knew all the time. If we could think of our research people as individuals who, among other things, are evolving prescriptions to take the place of our hunches, we would probably be more understanding of their efforts. As an illustration of this point we might draw a parallel from the field of medicine and public health. You and I are perfectly aware of the fact that colds are infectious. You have your pet theories about how to avoid a cold and I have mine. Scientists have made certain recommendations, some in keeping with your

theories, some in keeping with mine. But when the scientists are finally able to isolate the virus or germ which causes the cold, we will no longer have to play our hunches. What the research workers do in your room in any one day may not seem helpful to anyone in any sense; but from their testing and experimenting may come prescriptions which will in ways beyond measure be of benefit to education and human development. . . . To go back to the kindergarten itself. You and I may always have felt that, in dealing with children, it was both more agreeable and more profitable to use suggestions and requests rather than a battery of commands.¹ When the research worker can show us data to prove this, we not only follow our practice with more confidence, but we tell others, with assurance, of the efficacy of the practice.

Reports from the School to the Home. Why does the school make reports to the home? Clearly, if the parents are to help their child achieve a development commensurate with his potentialities, then the more they can know about the child the better it will be. The first aim then in making reports to the home should be to give the parents a better understanding of their child. Ideally a report shared with the parents should do five things. The report should help the parents to appreciate (1) where their child stands in relation to his previous growth and progress; (2) where he stands in relation to the development and growth of his present group of peers; (3) where he stands in relation to the development of all children of his own age; (4) where he stands in relation to his own capacity for growth; and (5) where he may be expected to stand if he performs up to his capacity in the years to come. To attempt to make a report of this nature seems at first like undertaking the impossible, and yet if the teacher will go back over her cumulative record material, and if she will keep in mind the outline which guided her in rating the child's school behavior, she will find that it is really not too difficult to make a worthwhile report. Certainly no report formulated on this basis would ever merit the caustic comments sometimes hurled broadside at modern school reports. Some of these have quite deservedly been called "Tattle Tale Trivia." But at that, we have gone a long way in our

¹ Moore, Sallie Beth, "The Use of Commands, Suggestions and Requests by Nursery School and Kindergarten Teachers," *Child Development*, 9:185-201, March, 1938.

thinking from the day when every child, no matter what his native ability, was rated solely upon his scholastic achievement.

Written Reports. It has already been suggested that the report to the home should be one which is a simplification of the report on school behavior, kept in the cumulative record folder. How far one goes in simplifying the report will depend in part upon the type of parent to whom the report is being sent, and in part upon the purpose to which the report itself is to be put. Sometimes the linear rating on qualities is retained in the report sent to the parents, and sometimes the substance of the long report is simply condensed into the pattern of an informal letter. Whatever form the report may take, it is safe to say that in addition to the routine reports on attendance, the report will also include some report of the physical and dental examinations. Some reference will be made to any outstandingly desirable qualities which the child may possess, and in one way and another reference will be made to the child's intellectual, social, emotional, and motor behavior. Special interests will be pointed out, and if conditions exist which might indicate present or impending difficulties, these also will be cited. In every respect it will be evident that the school is interested in co-operating with the parent in helping the child to make the most of his native endowment. Some schools definitely encourage the parents to come in for conferences following the receipt of the school report. In fact, the written report often makes a very good opening for the conference. If the parents are asked to share with the school their observations on the child's out-of-school behavior, they have the assurance that they are helping to round out the child's total developmental picture.

Oral Reports. Even the best of written reports cannot take the place of the personal conference. When the teacher and the parent, or preferably parents, sit down to talk about the welfare of the child, there flows between them not only an interchange of thoughts but an interchange of feelings as well. Sympathetic listening on the part of the teacher will give her insight and understanding which she could not possibly gain through any other channel. The points touched upon in the conference will be the same as those considered in the written report. If the parents have already had a written report, then questions

raised in reading the report may well be discussed at this time. The written report often raises questions in the minds of the parents which, if it were not for the conference, would have to go unanswered. Such questions, arising in a conversation, are much more apt to be answered. Schools have changed greatly since the parents of present-day children were young, and these changes need to be pointed out and interpreted to the parents. Such interpretation is difficult within the limits of the written or checked report, whereas in the course of a fifteen- or twenty-minute conversation it is quite a simple matter. Factors which loomed as great problems often seem to vanish if the situation can be talked over. It has been said that the teacher's estimate of the degree to which a child is a problem tends to vary in direct proportion to the degree to which the teacher knows the family; that is, the better the teacher knows the family, the less of a problem Johnny seems to be.

Time for Oral Reports. If kindergarten reports are to be made orally, then it is the administrator's responsibility to see that the teacher is provided with time in which the interviews may be had. One group of kindergarten teachers, together with their supervisor and their principals, have been experimenting with a plan whereby the teacher is entirely freed from teaching responsibilities on those days when the interviews are scheduled. The interviews are scheduled for three or four successive Fridays, or until the interviews have been completed. It is understood by the parents that the kindergarten will not be in session on those days. To date, parents, teachers, supervisors, and principals have all reacted more than favorably to the plan. It seems like an unusual innovation; but all innovations seem unusual at first, don't they?

Other Opportunities for Parent-Teacher Contacts. The least time-consuming and probably the least effective form of parent-teacher conference is found in the meetings of the Parent-Teacher Association. Such meetings are excellent places for the presentation of the aims of the school in general, and for the discussion of plans wherein parents and teachers can co-operate in improving the work of the school. They are poor places, however, for the discussion of the problems of any individual child.

In serious cases of "discipline" it is often the custom to ask the

parents to come to the school for a conference with the principal or the teacher. There is no real reason for limiting such discussions to grave difficulties. It may be quite as important from the point of view of the welfare of the child to ask the parent to come to the school to hear how well the child has done as it is to call them in only when the performance of the child has been very poor. If the schedule of the teacher is not too exhausting, she may be able to set aside certain late afternoons for fifteen- or twenty-minute conferences with parents, during which she tries to get acquainted with the parents, to learn what the child is like at home, and to report to the parents what she sees as the strongest and the weakest points in the child. Many points which would be grossly exaggerated if given the dignity of writing can be brought up informally in such a conversation.

Perhaps most important of all are the informal and rather casual contacts between mother and teacher. If the parents bring the child to the school, the day-after-day minute or two of greeting and the occasional query and answer will build up an understanding and frequently a real friendship between the two which will help both in their guidance of the child. If the parents can come once in five or six weeks to spend an hour or so in the kindergarten, they will see their child in comparison with others of his age, and will see him in a situation quite different from the one at home, and so will understand him and school much better for the visit.

Not to be forgotten are the chance meetings of parents and teachers. If the teacher sees the parents across the hall at a lecture or a concert, she is better acquainted with them than she was before, even if they do not meet and if the parents do not know that she is there. Chance meetings at the grocery store, on the streetcar, or at church, all leave each party feeling a little more friendly toward the other. If the child happens to be with the parent at the time, then the meeting is even more fortunate.

Many parents in the middle and upper social groups plan to invite the teachers to their homes for a meal sometime during the year. Some mothers are shy about giving such invitations, for they fear the teachers will interpret them as a request for special treatment of their child. Other mothers are quick to make the teachers realize that the purpose of the invitation is to allow parents and teachers to become better acquainted or to give the children the joy of entertaining the

teacher in their own home. Although the conversation at such times is likely to refer occasionally to the child, there is no need to turn the meeting into a discussion. Much more important is it to keep the conversation general and to give to each side an acquaintance with the point of view and the major interests of the other side, and to make teacher, parents, and children all members of an informal social group.

In some schools the teachers are asked to make at least one visit to the home during the school year. In many schools there is no time for such visiting, but if there is an opportunity, the teacher will find herself well rewarded for her efforts. She can understand the child much better if she knows the home. Teachers who plan to make visits to the home must remember that the courteous thing to do is to make an appointment with the mother before the time of the call. The child is usually delighted to have the teacher come to his home. When the teacher and the child next meet at the school, there is a new kind of kinship between them and for both the child and the teacher there is a new and closer bond between the home and the school.

SUMMARY

Records are kept for a variety of purposes. For each child there should be a cumulative record folder and to this folder the school and the home each have contributions to make. Records are for use, not for storage! The report to the parents, whether written or oral, should convey information which will help them better to understand and so better to provide for their child's development. The interview has an advantage over the written report in that it results in a two-way gain. Both parents and teachers gain much from the interview or oral report. Frequent school-home contacts of the right sort result in a better understanding of the total problem of child development. It is to the distinct advantage of teachers, children, and parents that a wholesome school-home bond be established.

QUESTIONS AND PROBLEMS

1. Is there any value in keeping records if these are not consulted at a later date?
2. What, if anything, can a kindergarten teacher learn from watching the records of her children as they progress through the grades?

3. If a child transfers from one kindergarten to another in the middle of the year, and fails to make a good adjustment in the second school, what information does the second teacher need from the first?
4. Secure copies of the kindergarten report used in several schools. What improvements can you suggest?
5. Devise a brief report to be sent to the first-grade teacher confidentially; one to be sent to the parents.

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Film and Radio Guide, Educational and Recreational Guides, Inc., 172 Renner Ave., Newark, N.J. Nine issues \$2.00
Grade Teacher, The Educational Publishing Corp., Darien, Conn. Ten issues \$3.00
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Hygeia, American Medical Association, 535 N Dearborn St., Chicago 10, Ill. Twelve issues \$2.50
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National Parent-Teacher, National Congress of Parents and Teachers, Inc., 600 Michigan Boulevard, Chicago 5, Ill. Ten issues \$1.00
New York Committee on Mental Hygiene—Bulletins and Pamphlets, New York Committee on Mental Hygiene of the State Charities Aid Association, 105 E 22nd St., New York 10, N.Y. Various Prices
Parents' Magazine, Parents' Institute Inc., 53 Vanderbilt Ave., New York 17, N.Y. Twelve issues \$2.50
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